National Library
of Canada

Acquisitions and
Bibliographic Services Branch

395 Wellington Street
Ottawa, Ontario
K1A 0N4

Bibliothèque nationale
du Canada

Direction des acquisitions et
des services bibliographiques

395, rue Wellington
Ottawa (Ontario)
K1A 0N4

Your file Votre référence

Our file Notre référence

NOTICE

The quality of this microform is heavily dependent upon the quality of the original thesis submitted for microfilming. Every effort has been made to ensure the highest quality of reproduction possible.

If pages are missing, contact the university which granted the degree.

Some pages may have indistinct print especially if the original pages were typed with a poor typewriter ribbon or if the university sent us an inferior photocopy.

Reproduction in full or in part of this microform is governed by the Canadian Copyright Act, R.S.C. 1970, c. C-30, and subsequent amendments.

AVIS

La qualité de cette microforme dépend grandement de la qualité de la thèse soumise au microfilmage. Nous avons tout fait pour assurer une qualité supérieure de reproduction.

S'il manque des pages, veuillez communiquer avec l'université qui a conféré le grade.

La qualité d'impression de certaines pages peut laisser à désirer, surtout si les pages originales ont été dactylographiées à l'aide d'un ruban usé ou si l'université nous a fait parvenir une photocopie de qualité inférieure.

La reproduction, même partielle, de cette microforme est soumise à la Loi canadienne sur le droit d'auteur, SRC 1970, c. C-30, et ses amendements subséquents.

Canada

UNIVERSITY OF ALBERTA

NURSES' PERCEPTIONS OF STRESS FOLLOWING THE ANNOUNCEMENT OF IMPENDING LAY-OFFS

BY

WENDY LYNN MAURIER

A thesis submitted to the Faculty of Graduate Studies and Research
in partial fulfillment of the requirements for the degree of
MASTER OF ARTS

DEPARTMENT OF SOCIOLOGY

Edmonton, Alberta
SPRING, 1996

National Library
of Canada

Acquisitions and
Bibliographic Services Branch

395 Wellington Street
Ottawa, Ontario
K1A 0N4

Bibliothèque nationale
du Canada

Direction des acquisitions et
des services bibliographiques

395, rue Wellington
Ottawa (Ontario)
K1A 0N4

Your file Votre référence

Our file Notre référence

The author has granted an irrevocable non-exclusive licence allowing the National Library of Canada to reproduce, loan, distribute or sell copies of his/her thesis by any means and in any form or format, making this thesis available to interested persons.

L'auteur a accordé une licence irrévocable et non exclusive permettant à la Bibliothèque nationale du Canada de reproduire, prêter, distribuer ou vendre des copies de sa thèse de quelque manière et sous quelque forme que ce soit pour mettre des exemplaires de cette thèse à la disposition des personnes intéressées.

The author retains ownership of the copyright in his/her thesis. Neither the thesis nor substantial extracts from it may be printed or otherwise reproduced without his/her permission.

L'auteur conserve la propriété du droit d'auteur qui protège sa thèse. Ni la thèse ni des extraits substantiels de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation.

ISBN 0-612-10676-4

Canada

University of Alberta

Library Release Form

Name of Author: Wendy Lynn Maurier

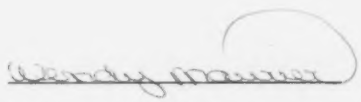
Title of Thesis: Nurses' Perceptions of Stress Following the Announcement of Impending Layoffs

Degree: Master of Arts

Year this Degree Granted: 1996

Permission is hereby granted to the University of Alberta Library to reproduce single copies of this thesis and to lend or sell such copies for private, scholarly, or scientific research purposes only.

The author reserves all other publication and other rights in association with the copyright in the thesis, and except as hereinbefore provided, neither the thesis nor any substantial portion thereof may be printed or otherwise reproduced in any material form whatever without the author's prior written permission.



Wendy Lynn Maurier
604 Cheriton Crescent
Edmonton, Alberta T6R 2M6

April 12, 1996

UNIVERSITY OF ALBERTA

FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled NURSES' PERCEPTIONS OF STRESS FOLLOWING THE ANNOUNCEMENT OF IMPENDING LAY-OFFS submitted by WENDY LYNN MAURIER in partial fulfillment of the requirements for the degree of MASTER OF ARTS.

Herbert C. Northcott (Supervisor)

George K. Jarvis

Linda Reutter

Linda Reutter (External)

March 28, 1996

ABSTRACT

The Alberta Health Care System is undergoing dramatic changes in response to both provincial and federal funding cuts to health care. As a result of these ongoing health care cuts, there are increases in challenges, demands, and stressors for nurses. The question of whether job uncertainty, job stressors, cognitive appraisal, coping, and social support influence the perceived level of stress, physical health, and mental health of nurses was examined for 271 registered nurses employed in a large acute care teaching hospital who responded to a self-administered survey questionnaire. Using hierarchical multiple regression, three dimensions of stress were the focus of analysis (perception of stress, self-reported physical health, and self-reported mental health). The data from the present study suggest that job security stressors, work environment stressors, coping (distancing), and the frequency of involuntary job change were related to perceived stress. Additional findings from this study indicate that coping strategies (positive reappraisal and escape-avoidance coping) were most closely related to self-reported physical and mental health. Social support was also found to be related to higher levels of both physical and mental health.

ACKNOWLEDGEMENTS

Many people have been patient, helpful, and supportive to me during the past several months leading up to the completion of my thesis and deserve honorable mention.

First and foremost, I would like to thank Dr. Herbert Northcott, my supervisor and mentor, for his insight, confidence, and encouragement throughout the duration of my Master of Arts degree. His prompt feedback and availability to sit down and discuss my thesis at great lengths are greatly appreciated. His sincere interest in my success will always be remembered.

I would also like to thank the other members of my thesis committee, Dr. George Jarvis and Dr. Linda Reutter for their thoughtful and constructive comments on my thesis proposal and on the final version of my thesis. A special thanks to Dr. Reutter for agreeing to be my external examiner.

I would also like to thank my husband Ron, and daughters Megan and Amy for their extreme patience as I sat endlessly behind closed doors editing and re-editing the final draft of my thesis. Their support has not gone unnoticed.

NURSES' PERCEPTIONS OF STRESS FOLLOWING THE ANNOUNCEMENT OF IMPENDING LAY-OFFS

TABLE OF CONTENTS

CHAPTER

1. INTRODUCTION 1

2. REVIEW OF RELEVANT LITERATURE

Introduction 8

Factors Contributing to Stress 8

Effects of Unemployment and Job Loss 10

The Role of Psychosocial Resources 10

Models of Stress 14

Person-Environment Fit Model 14

Demand-Control Model 15

Cognitive Appraisal Model 16

Summary of Stress Models 18

Conceptual Framework 19

Chapter Summary 21

3. RESEARCH QUESTIONS, HYPOTHESES, AND CONCEPTUAL MODEL

Research Questions and Hypotheses 24

Chapter Summary 25

4. METHODOLOGY

Introduction 26

Research Design 26

Measurement of Dependent Variables

Perceived Level of Stress 27

Physical Health 29

Mental Health 30

Explanatory Variables: Independent Variables

Job Uncertainty 31

Nurse Survivor 32

Potential Stressful Working Circumstances 33

Intervening Variables

Cognitive Appraisal 35

Coping 36

Social Support 39

Control Variables 41

Procedure 41

The Researcher's General Impressions 46

Methods of Analysis 46

Chapter Summary 48

5. RESEARCH FINDINGS

Introduction 49

A Look at Who The Respondents Are 49

Age 49

Marital Status 49

Bread-Winner Status 50

Number of Dependent Children 50

5. **RESEARCH FINDINGS (cont.)**

Employment Status 50

Shiftwork 50

Years of Nursing Experience 50

Unit Type 51

Education 51

Past Experience 52

Job Status 52

Stress and Stressors 56

Stress: A Descriptive Analysis 56

Stressors: A Descriptive Analysis 58

A Bivariate Analysis 61

Multivariate Regression Analysis 63

Summary 67

Physical Health 67

A Descriptive Analysis 68

A Bivariate Analysis 69

Multiple Regression Analysis 71

Multiple Regression of How Healthy Physically 71

Multiple Regression of the Physical Health Scale 75

Summary 79

Mental Health 80

A Descriptive Analysis 80

A Bivariate Analysis 81

Multiple Regression of How Healthy Mentally 83

Multiple Regression of the CESD 86

Summary 90

5. **RESEARCH FINDINGS (cont.)**

Coping 91

The Effect of Cognitive Appraisal on Coping 91

The Effect of Job Status on Coping 95

Summary 98

Chapter Summary 99

6. **DISCUSSION**

Introduction 100

Job Uncertainty 100

Job Uncertainty and Stress 101

Job Uncertainty and Health 102

The Influence of Job Uncertainty on the Use of Coping Strategies 104

Job Stressors 106

The Role of Cognitive Appraisal 110

The Influence of Cognitive Appraisal on Perceived Stress and Health 110

The Effect of Cognitive Appraisal on Coping 111

Coping 113

Social Support 115

Chapter Summary 117

Implications of Research for Nursing 117

7. **LIMITATIONS AND RECOMMENDATIONS** 119

8. **JOB UNCERTAINTY: A QUALITATIVE STUDY** 123

REFERENCES 127

APPENDIX A: A Survey of Job Stress for Nurses 134

APPENDIX B: Qualitative Interview Participation Consent 164

APPENDIX C: Qualitative Semi-Structured Questions 165

LIST OF TABLES

Table	Description	Page
4.1	Ways of Coping Subscales	37
5.1	Characteristics of the Participants in the Study	53
5.2	Means for Stress and Stressors	57
5.3	Ranking of Stressors	59
5.4	Bivariate Correlations, Means, and Standard Deviations for Stress, Cognitive Appraisal, and Social Support	62
5.5	Multiple Regression of Stress	64
5.6	Bivariate Correlations, Means, and Standard Deviations for How Healthy Physically, Physical Health Scale, Cognitive Appraisal, and Social Support	70
5.7	Multiple Regression of How Healthy Physically	72
5.8	Multiple Regression of Physical Health Scale	76
5.9	Bivariate Correlations, Means, and Standard Deviations for How Healthy Mentally, CESD, Cognitive Appraisal, and Social Support	82
5.10	Multiple Regression of How Healthy Mentally	84
5.11	Multiple Regression of CESD	87
5.12	Multiple Regression of Coping on Primary and Secondary Appraisal	93
5.13	Multiple Regression of Coping on Job Status	96

LIST OF FIGURES

Figure	Description	Page
2.1	A Transactional Model of Stress, Coping, and Health	20

CHAPTER ONE
INTRODUCTION

The workplace is changing; indeed, change seems to be the one constant in today's work world. The rapidly evolving occupational market in the 1990s is driven primarily by new economic realities: deficit reduction, cutbacks, downsizing, and reform. In the area of health care, challenges, demands, and stressors are increasing for nurses because of ongoing health care cuts.

Nurses represent the largest single group of health care workers in Canada and therefore evaluating the work life of nurses is an important issue, especially when the delivery of health care is presently in a period of rapid change. In such times, uncertainty is a predominant source of job stress. Job stress among nurses does not occur in isolation, but is enmeshed within the current turbulent hospital environment. When change involves such things as lay-offs and job displacement, employee stress is heightened. Indeed, changes such as these and the stresses they generate may create a negative work environment. The consequences of these rapid changes, stressors, and a negative work environment may ultimately undermine employee health and the quality of patient care.

Budget cuts to the Alberta Health Care System have become a harsh reality. In February, 1994, Shirley McClellan, the Minister of Health for Alberta, highlighted what cutbacks were to be expected for acute-care hospitals over the next three years. Provincially, $749 million was to be cut from the $4 billion health care budget by the end of 1996-97 including a $368 million reduction to all acute-care funding, of which $270 million was to be cut for Edmonton and Calgary by 1997. Of this $270 million reduction to acute health care in Edmonton and Calgary, $100 million was to be taken in

1994-95. Provincially, acute care patient days per 1000 population was to be reduced from 1083 to 745. In short, Alberta's provincial health care budget was to drop by 17.6% over the next three years (Donald P. Schurman, President, University of Alberta Hospital, article published in Vital Signs, a newspaper printed for University Hospital employees, November, 1994).

The Alberta health care system is in a state of turmoil. Hospitals are making internal changes to adapt to the external demands of the current provincial government. The dilemma for hospital administration is how to carry out the required budgetary changes yet still maintain a high standard of nursing care. Hospital closures, bed closures, wage roll-backs, flattening the managerial hierarchy, lay-offs, and replacing registered nurses with nursing aides have all been utilized as ways to reduce the health care budget. Regardless of the administrative approach used, these changes may have implications for the stress experienced by Alberta nurses.

The headline on the front page of the Edmonton Journal, Monday October 17, 1994 read "Hospitals to slice another 950 jobs". According to this article, Brian Lemon, the regional health authority's chief executive officer, had said that at least another 950 workers face layoffs, or roughly six percent of the 15,000 employees in the regional health system, as the regional health authority moves to downgrade three local hospitals to community health centers (Helm, 1994).

In March of 1995, the Capital Health Authority for the Edmonton region announced that the number of projected job losses had doubled due to an unexpected shortfall of $24 million in revenue. They disclosed that approximately 1,850 full time equivalent positions that existed at the time in health care in the Capital region would be gone over the next two years (Capital Health Authority, Report to the Public, March, 1995). The projected

number of position reductions were to include: 160 management positions, 500 positions in non-clinical support (such as laundry, housekeeping, and food services), 700 positions in laboratories, 150 positions in clinical support (such as physiotherapists, social workers, pharmacists, and respiratory therapists), and 340 nurses and licensed practical nurses. It appears that restructuring will mean hard realities and job uncertainty for people employed as managers, healthcare workers, and support service providers in the Edmonton Capital Region.

How many health care professionals have already lost their jobs since the implementation of the Health Care Reform? Statistics for the Edmonton and St. Albert region from April 1, 1993 to September 16, 1994 claim that over 2229 union and non-union health care workers have been impacted as a result of health care restructuring, resulting in either layoff with or without recall, partial layoff with or without recall, lower job status, and voluntary early retirement (Jane Shustrik, President of Staff Nurses Association, personal communication, October 24, 1994). However, by 1996 the number of job losses has far exceeded the 2229 impacted prior to the end of 1994. Alberta Health cited that the number of health care staff in 1995 was 51,639 down from 58,985 in 1993 (cited in the Edmonton Journal, March 5, 1996, B3). Since the onslaught of budget cuts in September of 1993, the number of nurses cut provincially total 3100 of which 1882 were lost in the Edmonton region (cited in the Edmonton Journal, January 26, 1996, B3).

No longer is it just the unskilled and uneducated who are vulnerable to job loss. Job insecurity now afflicts virtually all sectors of the workforce, including nurses. Up until the early 1990s, nurses have enjoyed one of the most stable careers in Canada. Nursing shortages have always been the primary concern, not job shortages. However, nurses are presently being

initiated into a new economic reality: job insecurity, lay-offs, and involuntary job displacement. What impact will these novel economic realities have on the level of stress, physical health, mental health, and coping styles of nurses? These unfamiliar transformations that nurses are experiencing are profound; therefore, evaluation is imperative.

> Over the past year, I have seen an increasing number of nurses for counselling. The nurses with the most problems tend to be those nurses who are anticipating job loss. This period of uncertainty definitely takes a toll on their health. The other group of nurses I counsel are those senior nurses who come to me with problems concerning disinterest in their work, and feelings of guilt and anger. I term these nurses as suffering from "survivor stress". I don't keep a record of statistics, but stressors in nursing are becoming more prevalent with the downsizing of the hospital and its budget (Personal Communication, Linda McCauley, Employee Assistance Coordinator, Occupational Health and Safety, University of Alberta, March 1, 1994).

There have been relatively few occupational studies that have examined the effect of job insecurity and job loss on health and there are no known studies addressing job insecurity and job loss specific to nursing. In spite of the vast number of stressors experienced by nurses, little is known about the health risks, both mental and physical, that may result from the impending loss of their livelihood. Cuts and reorganization in nursing services are biting deep and it is the aim of this thesis to examine the issue of nursing stress by exploring the question of job insecurity resulting from restructuring of the Alberta health care system. This thesis will examine perceived level of stress, contemporary job stressors, coping strategies, social support, physiological and psychological health, and the influence of cognitive appraisal for nurses experiencing job loss and job displacement, and for the nurse-survivor.

The thesis begins by addressing the issue of occupational stress in Chapter Two, "Review of Relevant Literature". This is done in an attempt to move toward an understanding of occupational stress from a cognitive perspective. To set the stage for exploring a more inclusive conceptual model, Chapter Two begins with a review of a number of research studies which have addressed factors contributing to occupational stress, the effects of unemployment and job loss, and mediating effects in stressful situations. A brief review of three models used in studying job stress are presented. Keeping in mind the relevance of the literature and the models for studying job stress, the chapter ends with an attempt to sketch out a transactional model of stress, coping, and health.

Chapter Three, "Research Questions and Hypotheses", outlines the specific research questions and hypotheses to be addressed.

Chapter Four, "Methodology", begins with a brief description of the research design used for this study. The chapter proceeds with specifying the measurement of the theoretical constructs employed in this study. Discussion of the procedure follows. The chapter concludes with a brief outline of the methods of analysis employed in Chapter Five.

Chapter Five, "Research Findings", is the empirical chapter. Here the issue of nursing stress, health, cognitive appraisal, coping, and social support are critically discussed by drawing on the research collected in March/April of 1995, from 271 registered nurses employed at the Royal Alexandra Hospital in Edmonton, Alberta. Through the use of both quantitative and qualitative statistics I am able to provide evidence of the types of job stressors experienced by acute care hospital nurses. Through the use of multivariate analysis, this chapter illustrates the extent to which cognitive appraisal, coping, and social support are associated with stress, health, and illness.

Chapter Six, "Discussion", summarizes the results outlined in Chapter Five in relation to the research questions and hypotheses set out in Chapter Three. The chapter concludes with implications of this research for nursing.

Chapter Seven, "Limitations and Recommendations" identifies a number of methodological weaknesses within the study and gives suggestions on how to remedy them. The chapter concludes with a number of recommendations for future research based on the findings from this study.

Chapter Eight, "Job Uncertainty: A Qualititative Study" provides the reader with a brief review of a research study that is currently in progress. The qualitative study is a continuation of the quantitative research presented in this thesis, however, the qualitative study goes beyond this present study to explore answers to the questions: How does restructuring of the health care system precipitate a crisis for some nurses and a challenge for others? Over time, how does a nurse prepare for or adapt to uncertain and potentially devastating job loss? This study will be used to examine the transition process from anticipated job loss or job displacement to actual job loss or job displacement, its meaning, the adjustments, and the consequences.

Stress research is of societal and economic importance. This particular research study is important for a number of reasons. First, job stress is purported to be costly to the nurse, the hospital, the health care system, the patient, and the patient's family (Norbeck, 1985). The effects of stress on the functioning of nurses and hospitals are dramatic and devastating. The International Labor Office (1993) cited that costs incurred by the individual as a result of occupational stress include both financial costs and ill-health, whereas the consequences of employee stress for the employer and the national economy are lowered productivity, increased employee absenteeism, increased labor turnover, and increased compensation premiums. Thomas (1993)

estimated that the cost of stress in Canada ranges between ten and twelve billion dollars each year and argues that compensation claims are on the rise. It seems apparent that the advent of funding cutbacks to health care will produce more stress on the health care system and within the health care system.

Second, Fletcher and Payne (1980) criticize stress research studies for examining relatively stress-free populations. It is suspected that nurses working in hospitals where job loss is apparent will be more prone to stress and thus more likely to manifest the symptoms of that stress. Previous empirical research has tended to focus on the certainty of job loss such as plant closures. This research not only allows for the study of individuals **at risk** for job loss but also those exempt from job loss. It is also anticipated that analyzing the effects of budget cuts resulting in lay-offs should lead to a better understanding of individually-based coping strategies for nurses threatened by job loss or job displacement and for the nurse survivor. This empirical study, although not representative of all Edmonton nurses, should provide the initial step in understanding job stress as it relates to nurses working in the midst of health care reform in Alberta.

CHAPTER TWO
REVIEW OF RELEVANT LITERATURE

INTRODUCTION

Occupational stress is not a new phenomenon. However, to date, there has been little or no research addressing the stressfulness of job uncertainty and job loss specific to the nursing profession. This chapter reviews four bodies of sociological research and literature specifically focusing on issues of stress, coping, and health in an attempt to portray and understand the experiences of nurses working in the health care field during a major restructuring of health care in Alberta. In outlining these bodies of literature, the intent is to present a conceptual framework which may identify the connections between stress and cognitive appraisal in an attempt to better understand how nurses adapt to stressful situations.

FACTORS CONTRIBUTING TO STRESS

There has been significant concern within the nursing profession regarding research findings which repeatedly document that occupational stress is common among nurses (McRanie, Lambert, & Lambert, 1987; Wolfgang, 1988; Foxall, Zimmerman, Standley, & Bene Captain, 1990; Van Servellan & Leake, 1993; Ogus, 1995). A study by Wolfgang (1988) compared stress levels, stressors, and coping between doctors, nurses, and pharmacists. What they found is that nurses experienced significantly more stress than both doctors and pharmacists and that doctors reported the lowest level of stress. These results suggest that nurses may be more vulnerable to stress in a changing work environment than other health care professionals. Health care facilities are stressful institutions and can place considerable strain on nurses.

There are many factors operating in the nursing workplace which contribute to or diminish mental and physical health on the job. There is evidence to suggest that workload (McCranie et al., 1987), unit type (Van Servellen & Leake, 1993; Foxall, Zimmerman, Standley, & Bene-Captain, 1990), shiftwork (Coffey, Skipper, & Jung, 1988; Skipper, Jung, & Coffey, 1990), patient diagnosis and acuity (McLaughlin & Erdman, 1992), ethical conflicts (Heim, 1991; Rodney & Starzomski, 1993), dealing with death and acute illness (Foxall et al., 1990), and role ambiguity (Heim, 1991) are associated with increased levels of stress and burnout for nurses. Although these factors have been significant stressors for nurses in the past, it is anticipated that other work-related stressors such as job insecurity are currently operating in the nursing profession to increase the degree of stress.

Only a handful of studies have examined the deleterious consequences of the fear of job loss with the onslaught of organizational downsizing. Rosellini (1981) examined the effect of the fear of job loss among federal workers following budget cuts to government programs. Rosellini found that federal budget cuts seem to have played a significant role in a recent increase in federal employees' usage of health services. In light of the feared layoffs of federal workers, almost triple the number of federal employees were treated at the Department of Health and Human Services for stress-related symptoms such as dizziness, stomach cramps, diarrhea, and increased blood pressure.

Blundell (1980) also examined a set of government employees who were subjected to budget cuts and impending job loss. The findings revealed that government employees whose staff had been pruned and reorganized were found to be so fearful about their future that productivity suffered. It is apparent from these study findings that the anticipation of job loss exerts adverse effects on workers.

EFFECTS OF UNEMPLOYMENT AND JOB LOSS

There has been a tremendous amount of research into the stress of work, including the effects of unemployment, but little attention has been given to the threat of job loss, or to put it another way, job insecurity. Kasl, Gore, and Cobb (1975) examined changes in health and in behavior related to health effects in men whose jobs were abolished because of a permanent plant closing. Subjective health complaints, clinical symptoms, and social support were analyzed as the men went through the various phases of anticipation, plant closure, unemployment, and re-employment. It was demonstrated that the period of greatest ill-health was the time when unemployment was anticipated. It appears from this study that the period of anticipation of the event of job loss can be more stressful than the event itself.

In a longitudinal panel study of 354 blue collar men and women, Arnetz et al. (1991) examined neuroendocrine, immunologic, and psychological effects of unemployment and job insecurity. The anticipatory phase appeared to be the most stressful time for workers. Results showed marked effects during the anticipatory and early unemployment phase on mental well-being, serum cortisol, and total cholesterol. These changes were thought to be short-term; however, changes in risk factors associated with cardiovascular disease were observed at least two years following job loss. Coping styles also appeared to be a major determinant of how people reacted to unemployment. It is evident from these study findings that both actual and anticipatory job loss are detrimental to health.

THE ROLE OF PSYCHOSOCIAL RESOURCES

A number of personal characteristics and resources can serve to intensify or reduce the effect of stressors. Of all the potential stress moderators, social

support has probably received the most research attention. In defining social support, researchers have listed various types of support. House (1981) concluded that four types of social support encompass the entire spectrum identified in the literature. These are emotional support (providing esteem, affect, trust, and listening), appraisal support (providing affirmation, feedback, and social comparison), informational support (providing advice, suggestion, directives and information), and instrumental support (providing aid in kind, money, labor, time, or modification of the environment).

The role of social support as a buffer or moderator in stressful situations has been documented in the literature on occupational stress and health (LaRocco, House, & French, 1980; Norbeck, 1985; Oehler, Gage-Davidson, Starr, & Lee, 1991; Ensel & Lin, 1991; Marshall & Barnett, 1992). The underlying assumption regarding the mediating role of social resources is that persons with more or higher quality resources are protected or "buffered" from the adverse effects of stress.

Karasek and Theorell (1990) identify three mechanisms of social support. First, social support is a buffering mechanism between psychological stressors at work and adverse health outcomes. Second, social contacts and social structures affect the basic physiological processes important to the maintenance of long-term health. Third, social support facilitates active coping patterns.

In terms of its stress-moderating function, the most prevalent hypothesis is that social support buffers the relationship between stressors and stress outcomes. LaRocco et al. (1980) examined different sources of support and found that work-related stresses were affected more by work-related sources of support than by familial support. Norbeck (1985) examined the types and sources of social support of critical care nurses and their effect on job stress, job

dissatisfaction, and psychological symptoms. She found that for married nurses, work support explained a greater amount of variance in perceived job stress, whereas familial support explained a greater amount of variance for unmarried nurses.

The flourishing of research on coping is indicative of a growing conviction that coping is a major factor in the relation between stressors and their outcomes (Folkman et al., 1986; Wolfgang, 1995; Ogus, 1995; Frone, Russell, & Cooper, 1995). It has been suggested by several researchers that coping acts as a stress-moderator. Coping has been shown to be either adaptive or maladaptive; however, it has been suggested that only the adaptive coping styles can have the capability to buffer the relationship between stressors and distress. Lazarus and Folkman (1984) assert that coping serves two functions: it manages or alters the problem by defining the problem, generating alternative solutions, and weighing alternatives (problem-focused coping) and it regulates the emotional response to the problem by avoidance, distancing, and selective attention (emotion-focused coping).

Wolfgang (1995) surveyed 280 nurses and 279 pharmacists about how they cope with job-related stress. First, Wolfgang asked the respondents to indicate how often they found each of 30 job situations to be stressful. Then a list of 17 coping strategies were presented and the respondents were asked to identify how often they used each strategy to deal with work-related stress. Wolfgang found that nurses reported significantly more job stress and more frequent use of active-cognitive coping which involves managing one's appraisal of a situation's stressfulness than did pharmacists. Active behavioral coping which is characterized by overt attempts to deal directly with the problem and avoidance coping which serves to avoid active confrontation of the problem or indirectly reduces emotional tension were also used more by

nurses than pharmacists. Correlations of stress and coping revealed that for both pharmacists and nurses, greater use of avoidance coping was associated with higher levels of stress and lower job satisfaction, and greater use of active-cognitive and active-behavioral coping were associated with improved job satisfaction, although, for nurses only.

Ogus (1995) surveyed 128 medical and surgical staff nurses regarding burnout, perceived job stress, and coping strategies. Coping strategies were assessed using four of the scales from the Coping Inventory (Wong & Reker, 1984): palliative coping which includes wishful thinking, self-blame and denial; internal control which depends on one's own efforts to change the situation; preventive coping includes direct coping strategies aimed at promoting one's well-being and reducing the likelihood of potential problems; and existential coping which is an attempt to maintain a sense of meaning and coherence or an attitude of acceptance. Ogus found that nurses who relied heavily on negative palliative coping reported higher burnout and stress than nurses using low levels of palliative coping. The results also revealed that nurses using high levels of preventive and existential coping reported lower burnout than those using these strategies minimally or not at all.

Although these results seem to be consistent with the stress-buffering hypothesis, other studies have found no stress-buffering effect. Frone, Russell, and Cooper (1995) examined the relationship of work and family stressors to psychological distress and the moderating influence of social support, mastery, active coping, and self-focussed attention. They surveyed 596 household residents about job stress and found that social support and active coping styles did not buffer the stress-distress relationship. However, it is important to note that the correlations and regression results indicated that these psychosocial resources are negatively related to psychological distress.

MODELS OF STRESS

Daft (1989) defines a model as "a simple representation that describes only a few important dimensions of the concept under investigation" (p. 23). Three diverse models of stress will be presented. Two models specifically designed to examine occupational stress are French and Caplan's (1972) Person-Environment Fit Model and Karasek and Theorell's Demand-Control Model (1990). A third model, Lazarus and Folkman's Cognitive Appraisal Model (1984), is utilized to examine stress in general.

Person-Environment Fit (PEF) Model

In the context of the theoretical orientation of the person-environment fit (PEF) model, occupational stress is defined in terms of job characteristics that pose a threat to the individual because of a poor match between the abilities/attributes of the employee and the demands of the job. French and Caplan (1972) assert that workplace stress results from one of two misfits. One type of misfit is that between the individual's needs and the organization's ability to provide rewards or sources to fulfill those needs. The second type of incongruence is reflected by a misfit between the individual's work style or ability level and the organizational requirements or job demands. According to the PEF model, both types of misfits create stress by placing the person in a situation in which he/she is personally motivated to attain important outcomes while being faced with high levels and long durations of uncertainty about whether these outcomes will be achieved (Gutierres, Saenz, & Green, 1994).

Using the PEF model to examine job stress and health among white and hispanic workers, Gutierres, Saenz, and Green (1994) found that higher levels of job related stress were associated with more numerous health problems,

revealing that incongruence between the employee and their environment exert adverse effects on health. These findings are consistent with previous studies incorporating the PEF model. It would appear from the plethora of studies incorporatating the use of the PEF model (Gutierres, Saenz, & Green, 1994; Arney, 1988) that it is effective in analyzing job stress.

Demand-Control Model

Karasek and Theorell (1990) imply that their demand-control model is a simple description of the causal factors operating in the psychosocial work environment. Karasek and Theorell's model consists of three dimensions: decision latitude (control), psychological demand, and social support. They have argued that the effects of job demands are best understood by taking into account the worker's level of control or autonomy at work. They argue that a high level of control offers the worker with an opportunity to cope with occupational stressors such as work overload. Control, in this model, acts as a stress-moderating factor with risk-reducing consequences. According to the demand-control model, the joint effects of the psychological demands and control predict stress-related illness such that the most adverse outcomes are associated with jobs that combine high levels of demands with low levels of control. Low strain jobs are characterized by low levels of demand and high levels of control. Karasek and Theorell also make a distinction between active and passive jobs, with the former characterized by high levels of demand and control, and the latter by low levels of demand and control.

According to Karasek and Theorell's demand-control model, the nursing occupation is categorized as an occupation where psychological demands and decision latitude are both high (active job). Karasek and Theorell suggest that occupations in this quadrant enjoy the highest psychic rewards from work and

have by far the greatest job satisfaction in comparison with occupations in the passive, high strain, and low strain quadrants.

Why is it that there is significant concern within the nursing profession that nurses are flooded with stress if Karasek and Theorell deem nursing as both a rewarding and satisfying profession? The answer may lie in the fact that although Karasek and Theorell situate nursing in the active job quadrant, nurses are the lowest occupational group in that category, lower than clerk supervisors, bank and public officials, physicians, high-school teachers, farmers, and electrical engineers. Landsbergis (1988) tested Karasek and Theorell's demand-control model empirically on 289 nurses and found that nurses with a high workload and little control suffered significantly more from negative stress such as job dissatisfaction and health impairment when compared with others.

In contrast to Karasek and Theorell's vision of nursing, Thomas (1993) describes the nursing environment as "places where behavior is controlled and strictly guided along narrow lines" (p.36). She suggests that nurses's clinical autonomy is limited, individual abilities are essentially ignored, growth is discouraged, and deviants are punished to maintain the status quo. According to Thomas, nursing has become technological, specialized, and dehumanized.

Cognitive Appraisal Model

Lazarus and Folkman (1984) take a different approach to the study of stress. Whereas Karasek and Theorell (1990) examine occupational stress from an organizational perspective, Lazarus and Folkman examine all types of stress from an individual perspective. Lazarus and Folkman's theory distinguishes between stressful antecedent conditions (stressors), how they are perceived and cognitively appraised by an individual, and subsequent emotional reactions when a stressor is appraised as threatening and the

individual is unable to effectively cope with it.

The cognitive transactional theory of psychological stress and coping was developed by Lazarus and colleagues over a number of years. They suggest that people typically confront stress-provoking situations with a variety of behaviors and perceptions designed to alter the situation and/or deal with its impact. Not all people experience stress to the same degree as a result of individual differences in cognitive appraisal, coping resources, and social support.

Lazarus and Folkman (1984) approach the study of stress from a cognitive perspective in an attempt to understand why it is that the same external pressures and stimuli affect different people in different ways. They propose that cognitive appraisal acts as a mediator between stressors in the objective external environment and the individual's symptoms of stress. Lazarus and Folkman's concept of cognitive appraisal includes both primary and secondary appraisal. Primary appraisal involves people's judgements about what is at stake in a stressful encounter, while secondary appraisal involves their beliefs about the viable options for coping. The extent to which any event is stressful is influenced by various personal and situational factors in a specific process or "transaction". An individual's appraisal of the environment and coping responses will either facilitate or hinder their response to the stressor. Thus, Lazarus and Folkman conceptualize stress in the workplace as essentially an individual phenomenon in which effects of work-related stressful situations on emotions and behavior are mediated by an employee's perception and subsequent appraisal of particular stressors and his/her coping skills for dealing with them.

A major limitation with this model is that more emphasis should be placed on the social and environmental determinants of the ability to cope

with stress. Other criticisms have also been put forth. Brief and George (1994) argue that Lazarus and Folkman neglect the importance of discovering those working conditions that are likely to adversely affect the groups of employees who are exposed to them.

Incorporating the use of their cognitive model, Folkman et al. (1986) used an intraindividual analysis of the interrelations among primary appraisal, secondary appraisal, coping, and encounter outcomes. Their study revealed that secondary appraisal affected subjective responses to stress. They also found that coping was strongly related to cognitive appraisal, and the forms of coping that were used varied depending on what was at stake and the options available for coping.

Tomaka, Blascovich, Kelsey, and Leitten (1993) conducted three separate studies in order to demonstrate the utility of the cognitive appraisal model for predicting subjective stress, and physiological and behavioral reactions to potentially stressful events. They found that threat and challenge appraisals were able to predict subjective, physiological, and behavioral reactions to stressors that require active efforts to cope.

Summary of Stress Models

The above three models comprise a few of the major models put forth to explain stress and occupational stress at the present time, but in spite of this, few models have been found to be all inclusive. All three models have both merit and limitations. In evaluating these different approaches to stress research, one distinguishing feature has emerged. It can be postulated that the environment is the source or the cause of the stress (stressor), and the individual is the target or locus of the effect (stress reaction). The three models presented here are complementary and thus enable the researcher to

sketch out a more inclusive, meaningful conceptual model for understanding stress, coping, and health for this research study.

CONCEPTUAL FRAMEWORK FOR THE STUDY

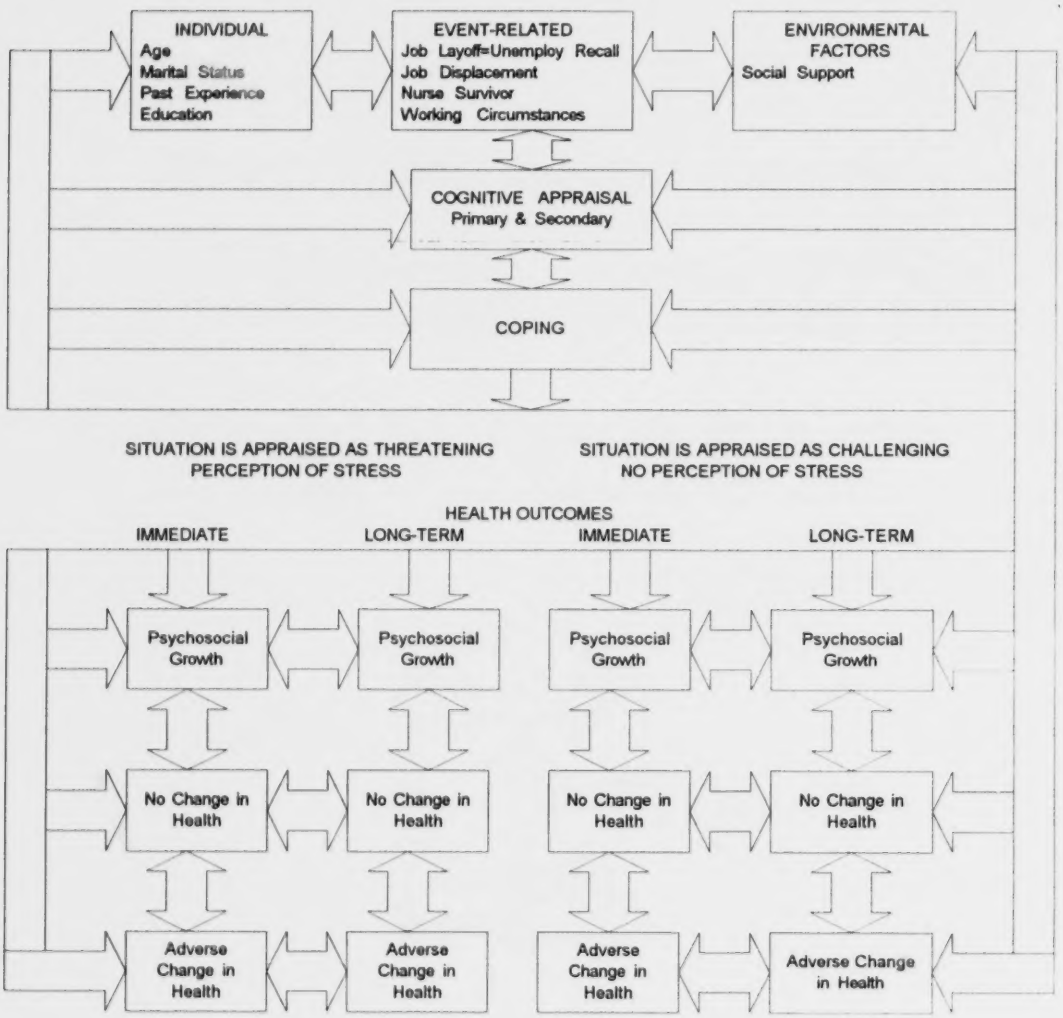
Not all individuals perceive an objectively similar situation as equally threatening or challenging. The nursing profession can be experienced as a challenge and an opportunity to expand new roles, or it can be experienced as a stressful occupation that provokes disruption and distress. The framework for this quantitative, cross-sectional study is driven by the theoretical work of Lazarus and Folkman (1984) and will incorporate a cognitive approach in studying nurses' perception of stress arising from constant changes to their working environment as a result of health care restructuring.

The cognitive-appraisal model on which most of the quantitative analysis is based, considers perceived stress and health as an outcome, largely determined by the interaction between the environment, person, and event-related factors (see Figure 2.1 for the schematic diagram of this conceptual, transactional model). The person's cognitive appraisal of the nursing and health care situation is pivotal. Cognitive appraisal influences a person's attitude toward nursing and the health care reform resulting in either the perception of stress or the lack thereof, and the feeling of health or ill-health. The arrows in both directions between concepts, as shown in Figure 2.1, indicate that stress is a process that occurs as the person interacts with the environment. The relationships are not static but dynamic.

FIGURE 2.1

A TRANSACTIONAL MODEL OF STRESS, COPING, AND HEALTH

Mediating Stimulus Mediating



Adapted from Moos & Schafer (1993) and Lazarus & Folkman (1984)

CHAPTER SUMMARY

In this chapter the purpose of the study has been defined within the context of existing occupational stress research. Although there is a plethora of literature on the sources and consequences of occupational stress in nursing, the research is not exhaustive.

In reviewing some of the relevant research in the area of occupational stress, a few gaps in our understanding of the effect of job uncertainty have been revealed. While nursing research has consistently examined the traditional work-related stressors, these traditional types of occupational stressors may not be the only sources of stress for nurses today. The health care reform itself, with resulting job insecurity, is anticipated to be a potential crisis-creator for nurses. The effects of this have not been examined.

In previous studies, job insecurity has been explored in relation to job loss because of permanent plant closures (Kasl, Gore, & Cobb, 1975; Arnetz et al., 1991). The difference between these two studies and this proposed research is the issue of certainty versus uncertainty. The workers in the two previous studies were informed that at the end of two months their jobs would be abolished. In this proposed research, nurses are uncertain as to whether or not their job will be lost/taken within the next round of lay-offs. That is, the potential loss of their job is anticipated. Lazarus and Folkman (1984) state that "one of the most important reasons why event uncertainty in real life can be stressful is that it has an immobilizing effect on anticipatory coping processes. The coping strategies for anticipating an event's occurrence are often incompatible with strategies needed to anticipate the event's nonoccurrence" (p. 91). Therefore, uncertainty of job loss will be explored to determine its effect on the stress and coping of acute hospital nurses.

Although job insecurity is the primary issue of the research, it is not the

sole issue. Two other groups of nurses are also affected by the restructuring of the health care system: the nurse who gets laid off but who has "bumping privileges" (resulting in job displacement) and the senior nurse who is not displaced but experiences other stressors related to co-worker lay-offs including guilt, general demoralization, orientating new staff to the unit, taking on a heavier workload, and working with inexperienced nurses.

From the literature reviewed, it would appear that researchers have long been interested in the effects of lay-offs for those who lose their jobs. As noted previously, Kasl, Gore, and Cobb (1975) and Arnetz et al. (1991) conducted longitudinal studies in order to examine the process of adjustment for those workers who were losing their jobs because of a permanent plant closure. Both studies found that the period of anticipation was the most stressful for workers. Nevertheless, research has seldom explored the effects of lay-offs on the working behavior and attitudes of those who remain with the organization: the survivors.

Because this area of investigation is novel for nursing, research into nursing stress needs to explore the effects of anticipated layoffs for the nurse being laid-off without bumping privileges (resulting in their choice of either unemployment or potential placement on the recall list), the nurse being laid-off and/or bumped with bumping privileges (resulting in job displacement), and the nurse-survivor. In each case, there needs to be an examination of levels of perceived stress, health, and coping styles.

In reviewing the literature on social support, it would appear that social support does have some buffering effect in stressful situations. However, Cronkite and Moos (1984) question the extent to which mediating factors, such as social support and coping, buffer or exacerbate the relationship between stress and illness. Cronkite and Moos found only one stress-buffering

effect associated with the use of approach coping, and several stress-intensifying effects of avoidance coping. Because of these contradictory findings, it seems crucial to measure the role of social support and coping to determine their effect on stress and illness for nurses.

CHAPTER THREE
RESEARCH QUESTIONS AND HYPOTHESES

Given the empirical and theoretical concerns outlined in Chapter Two, two broad research questions and corresponding hypotheses have been formulated. Much of the existing research on occupational stress in nursing suggest that workload, unit type, shiftwork, patient acuity, ethical conflict, dealing with death, and role ambiguity are associated with increased levels of stress and burnout for nurses. I contend that such findings are insensitive to the changes taking place in our current health care system and that previous occupational stressors may not be the only work-related stressors operating in the nursing profession today. This contention implies the following questions:

1. How much stress do nurses report in these times of fiscal restraint during the transformation of Alberta's current health care system? What are the contemporary occupational stressors that acute hospital nurses are currently experiencing? What are the different stressors among those nurses facing job loss, job displacement, and for the nurse survivor? How do nurses perceive the risk of job loss, job displacement, or job seniority?

For this research question, it is specifically hypothesized that:

1(a) Nurses will rank job insecurity, workload, and working with inexperienced nurses as major work-related stressors.

1(b) Those nurses facing job loss will rank job insecurity as a major stressor while those nurse survivors will rank workload as more stressful.

Researchers have argued that cognitive appraisal, coping, and social support act as mediators between stressors and the individual's symptoms of stress. These claims lead one to ask:

2. What role do cognitive appraisal, social support, and coping styles

play in influencing nurses' perceptions of stress and health outcomes? What coping strategies are utilized by nurses to deal with impending layoffs?

For this research question, it is specifically hypothesized that:

2(a) Nurses who appraise the health care reform (resulting in impending lay-offs, job displacement, and/or job seniority) as threatening (high primary appraisal) will report higher levels of perceived stress and lower levels of health in comparison with those nurses who appraise the health care reform as challenging (high secondary appraisal regarding a feeling of being able to change or deal with the situation).

2(b) Nurses who appraise the health care reform as threatening will incorporate distancing and escape-avoidance styles of coping. Nurses who appraise the health care reform as challenging will incorporate the use of confrontive coping, planful problem-solving, and positive reappraisal.

2(c) Social support will be positively correlated with lower levels of reported stress and higher levels of subjective health.

CHAPTER SUMMARY

In this chapter, the research questions to be answered within the body of the thesis have been put forth followed by corresponding hypotheses. In the following chapter, a discussion of the methodology of the study is described.

CHAPTER FOUR
METHODOLOGY

INTRODUCTION

I begin this chapter with a discussion of the research design, followed by specifying the measurement of variables. I then proceed with a brief outline of the procedure. I conclude this chapter with a discussion of the method of analysis used in Chapter Five.

RESEARCH DESIGN

This study will employ a cross-sectional quantitative survey research design to depict the stress level of acute hospital nurses working in the midst of health care restructuring. Specifically, the quantitative design will be used to determine acute hospital nurses' perception of the likelihood of job loss, job displacement, and job seniority (nurse-survivor). It will describe how many nurses perceive the current nursing situation (in the context of the health care reform) as stressful, the degree of stress experienced, and who (which group of nurses) experiences the greater degree of stress. The quantitative design will also examine the role of cognitive appraisal, coping styles, and social support in influencing the perceived level of stress reported by nurses by incorporating the use of Lazarus and Folkman's (1984) cognitive appraisal model.

The subjects for this cross-sectional quantitative study were drawn from the Royal Alexandra Hospital, a large, metropolitan teaching hospital in the City of Edmonton, Alberta. All registered staff nurses and nurse educators employed on a permanent full-time or part-time, temporary full-time or part-time, casual, or recall basis were invited to participate in the study.

To ensure that the ethical requirements of the study were met, the

researcher: informed the participants of the purpose of the study; ensured confidentiality by instructing the respondents to place their name, address, and telephone number on a separate form which will be kept separately from the questionnaire to be used only by this researcher to contact them, if chosen, for a subsequent qualitative study; assured subjects that their name will in no way be identified in the reporting of results; allowed the participants to withdraw from the study at any time, without penalty, ensuring voluntary participation; and provided for written informed consent for subsequent interviews. Consent for the questionnaire is implied by filling out the survey.

MEASUREMENT OF DEPENDENT VARIABLES

The dependent variables in this study are perceived level of stress and health outcomes (both physical and mental health) reported by nurses.

Perceived Level of Stress

Asbell (1985) indicated that "there is a killer lurking in the midst of human socialization, and it is to be called stress" (p. 55). Before proceeding with how stress will be measured operationally, it is imperative to define stress conceptually. Despite the relative importance of stress, researchers have found it difficult to define stress. Stress is difficult to define because different researchers define stress in relation to their background (ie. psychologists, sociologists, medical doctors, etc.). In consideration and respect for the breadth of the extreme complexities to which the definition of stress entails, this thesis will focus on the more recent definitions of stress. Stress has been conceptualized as a stimulus, a response, a relationship between the person and the environment, and a perception.

The most common definition of stress adopted by psychologists has

been that it is a stimulus. Stress stimuli are most commonly thought of as events impinging on the person and/or conditions arising within the person (Lazarus & Folkman, 1984). Stimulus definitions focus on events in the environment and assume that certain situations are normatively stressful (Holmes & Rahe, 1967) such as major life events. However, studies have shown that major life events are not always experienced as stressful (Martin Matthews & Brown, 1987; Bosse, Aldwin, Levenson, Workman-Daniels, & Ekerdt, 1991). A weakness of the stimulus definition of stress is that it does not allow for individual differences in the evaluation of events.

Response definitions are most commonly utilized by biologists and medical physicians. Response definitions refer to a state of stress (Lazarus & Folkman, 1984). The person is spoken of as reacting with stress or being under stress. On the other hand, Hendrix, Summers, Leap, and Steel (1995) consider stress to be a physiological or psychological response or outcome to a stressor. However, if stress is defined as a response, there is no systematic way of identifying what may or may not be a potential stressor.

Stress has also been defined as a particular kind of relationship or fit between the person and environment. If environmental demands do not match the person's abilities, needs, or expectations there is a poor fit which results in greater stressful experiences (Caplan, 1983). Lazarus and Folkman (1984) indicate that "psychological stress is a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being (p. 19). Incorporating this definition of stress ensures that there is no objective way to predict stress as a reaction without reference to properties of the person and the environment. Lazarus and Folkman advocate that the judgement that a particular person-environment relationship is stressful hinges on cognitive

appraisal. In relation to work, perceived job stress arises from the objective work situation or condition that is potentially stressful because of incongruence or lack of fit between the person and the environment.

And finally, stress has also been defined as a perception. Hendrix, Summers, Leap, and Steel (1995) view stress from a perceptual perspective. They assert that stress can also be viewed as one's perception of being stressed, not simply exposure to what others have labelled as a stressor or the effects of experiencing stress as indicated by a stress outcome. Perceptual stress is viewed as an intervening variable located between stressors and strain outcomes.

Adoption of one of these definitions of stress influences how one operationalizes stress. However, within the context of this study I am less concerned with unravelling the stress definition debate than with locating the experiences of nurses within the general area of occupational stress. Thus for purposes of this study, stress is defined as an uneasy cognitive state resulting from exposure to a stressor appraised as threatening that may result in physiological and psychological ill-health.

Three dimensions of stress were measured: the perception of stress, physical health, and mental health. To assess perceived level of stress in this study, respondents were asked, "In general, how stressed do you currently feel in your present job?" (1=not at all stressed; 5=extremely stressed). This measurement implies that exposure to a potential stressor does not necessarily result in the perception or feeling of stress.

Physical Health

Physiological health outcomes were assessed using two methods. First, respondents were asked a general question about how physically healthy they have felt in the past four months. Their response was rated on a seven-point

rating scale (1=not very healthy; 7=very healthy).

Second, a self-report measure of physical symptoms (adapted from a questionnaire used by Lowe and Northcott, 1986) was incorporated. In this self-report measure of physical symptoms, respondents were asked to identify whether or not they have experienced tiredness, loss of appetite, irritability, sleeplessness, dizziness, headaches, and muscular aches and pains. Each of these seven items were rated on a five-point rating scale (1=never; 2=rarely; 3=sometimes; 4=often; 5=always). However, during analysis each of these items were recoded in reverse order for easier interpretation of health (1=always; 5=never). For the purpose of a more simplistic analysis, a physical health scale was formulated by summating each of the physical symptom items and determining the mean. Mean physical health was then used as the dependent variable. The reliability analysis of this seven-item physical health scale was alpha = .79.

Mental Health

Mental health was also examined using two sources of measurement. First, respondents were asked a general question about how mentally healthy they have felt in the past four months. Their response was rated on a seven-point rating scale (1=not very healthy; 7=very healthy).

Mental health was also assessed with the 20-item Center for Epidemiological Studies Depression Scale (CES-D) (Radloff, 1977) that measures symptoms of depressed mood, feelings of guilt and worthlessness, feelings of helplessness and hopelessness, loss of appetite, and sleep disturbances. Each item was rated on a five-point rating scale (1=never; 2=rarely; 3=sometimes; 4=often; 5=always). In order to combine each item to form the CESD scale, 16 of the 20 items were recoded in the reverse order

to ensure that the scale was measuring depressed mood. This scale has been found to have very high internal consistency and adequate test-retest repeatability (Radloff, 1977). The reliability analysis for the 20-item CESD scale in this study was alpha = .93.

EXPLANATORY VARIABLES: INDEPENDENT VARIABLES

The five independent variables in this study are the perceived likelihood of potential job loss resulting in unemployment, potential job loss resulting in recall, potential job displacement resulting in a change in position, nurse survivor, and potential stressful working circumstances (potential sources of job stress).

Job Uncertainty

The first three variables are closely related to the concept of job uncertainty, that is, the potential, anticipatory loss of ones job. The perceived likelihood of potential job loss resulting in unemployment, potential job loss resulting in recall, and potential job displacement were assessed by asking participants to respond to three questions using a 7-point rating scale (1=not at all likely; 7=very likely). Specifically the respondent was asked, "How likely is it that in the next round of lay-off notices you will be laid off or bumped without having bumping privileges, resulting in unemployment?" "How likely is it that in the next round of lay-off notices you will be laid off or bumped without having bumping privileges, resulting in recall status?" Recall status occurs when a nurse no longer has enough seniority to bump another nurse out of a staff nurse position and therefore goes on a recall list where they are booked for shifts on any unit within the hospital based on the number of years of seniority. "How likely is it that in the next round of lay-off notices

you will be laid off or bumped but have bumping privileges?" Years of service is used by hospital administrators to determine how much seniority a nurse has. If a nurse gets laid off he/she is able to use their seniority to displace another nurse from a staff nurse position only if their seniority is higher than the nurse they wish to displace, herein comes the term "bumping".

Those respondents who chose number 7 (very likely) were used in the bivariate analysis to determine who would be placed in the specific job status categories: potential job loss without bumping privileges resulting in unemployment, potential job loss without bumping privileges resulting in recall status, and potential job loss with bumping privileges resulting in job displacement. Although I have narrowed my sample by only using the "very likely" respondents, I feel that this has also decreased the probability of sampling the same person more than once and therefore ensuring mutually exclusive groups.

Nurse Survivor

The following two questions measuring the nurse survivor variable used the rating scale 1=not at all secure; 7=very secure. "How secure do you feel with your present position (seniority) on your unit?" "How secure do you feel with your present nursing status (seniority) within the hospital?" These items are rated on the same 7-point scale as incorporated in the perceived likelihood of job loss questions.

For use in the bivariate analysis, the respondents who chose number 7 (very secure) were used to determine who were the nurse survivors in response to the question, "How secure do you feel with your present position (seniority) on your unit?" Unit seniority was used instead of hospital seniority because the nurse survivor must be a nurse who does not perceive him/herself to be at

risk for job layoff or job displacement. A nurse with hospital seniority may not necessarily have that much seniority on the unit he/she is working on and therefore there is a chance that he/she may be bumped. Another concern is that the unit they work on may close due to budget cuts which means that they would have to bump elsewhere in the hospital. This feeling of security is soley based on the nurse's perception of how secure he/she feels on his/her unit.

Potentially Stressful Working Circumstances

Potentially stressful working circumstances was measured using a revised self-reported perceived level of stress scale developed by Sister Sheila Spooner, as cited by Pinnell (1979) to evaluate the perceived severity and frequency of occurrence of potential work stressors encountered by registered nurses. Most of these specific sources of stress in nursing work had been previously identified by McRanie et al. (1987), Foxall et al. (1990), and Heim (1991).

For the purposes of this study the stressfulness of working circumstances will assist in identifying potential sources of job stress. The stressfulness of working circumstances was operationally defined as comprising two dimensions: the level of perceived stressfulness associated with various situations at work and the frequency of occurrence of each of the 14 potentially stressful work situations. Spielberger and Reheiser (1995) argue that job stress measures tend to confound the perceived severity of a stressful event with the frequency of its occurrence. The perceived severity of the stressful situation will greatly influence the intensity of a reaction when that stressor occurs. However, even though a specific stressful situation may be perceived as highly stressful, it will have limited impact if it occurs infrequently. The frequency of occurrence is an important measure because a nurse may perceive a high level of stress to be associated with a particular

situation, but if the situation did not occur, or occurred infrequently, it may not truly represent an important stressor in comparison to a situation which is perceived to be less stressful but occurred more frequently. Consequently, it is important to assess both the severity of the situation and its occurrence.

For each of the 14 situations, nurses were asked to indicate how stressful the described situation is perceived to be or could be using a five-point rating scale: 1=not at all stressful, 2=slightly stressful, 3=moderately stressful, 4=quite stressful, or 5=extremely stressful. In addition, the respondent was asked to rate the frequency of occurrence of the situation on a five-point rating scale: 1=never, 2=rarely, 3=sometimes, 4=often, and 5=always. Composite measures of stressfulness (total amount of perceived stressfulness) were determined by multiplying the reported stressfulness of the situation by the frequency with which the stressful situation occurs (Pinnell, 1979).

In order to make analysis more manageable, these 14 potentially stressful situations were separated into two scales based on face-validity and reliability analysis of each scale: job security stressors and work environment stressors. The job security stressor scale consisted of three items: the stressfulness and occurrence of a co-worker getting laid off or bumped from their unit, the possibility of future job loss, and talk that registered nurses may be replaced by non-nurses. The alpha for the three-item job security stressor scale was .73. The work environment stressor scale consisted of the remaining 11 items such as lack of time and resources, personal conflict with co-workers, working with inexperienced nurses, and the lack of physician communication with nursing staff. Using composite scores, the alpha for the 11-item work environment stressor scale was .85.

INTERVENING VARIABLES

The three intervening variables in this study are cognitive appraisal (primary and secondary), coping, and social support.

Cognitive Appraisal

Lazarus and Folkman (1984) propose that cognitive appraisal acts as a mediator between stressors in the objective external environment and the individual symptoms of stress. Lazarus and Folkman's approach to the stress process highlights the person's appraisal of the situation and subsequent ways of coping with it. Lazarus and Folkman distinguish between threat and challenge appraisals which occur before, or in anticipation of stressful situations. Threat appraisals are those in which the perception of danger exceeds the perception of abilities or resources to cope with the stressors. In contrast to threat appraisals, challenge appraisals are those in which the perception of danger does not exceed the perception of resources to cope.

According to Lazarus and Folkman, primary appraisal involves people's judgements about what is at stake in a stressful encounter and is assessed in terms of the degree of threat. Primary appraisal was measured using 12 questions, developed by Lazarus and Folkman, that describe various stakes such as a threat to their own physical well-being, self-esteem, goals at work, losing respect for others, well-being of loved-ones, and financial well-being. Each of the items were rated on a five-point rating scale (1=does not apply; 5=applies a great deal). For easier interpretation of findings, a 12-item primary cognitive appraisal scale was formulated with a corresponding reliability alpha of .90.

Secondary appraisal involves beliefs about the viable options for coping and is assessed in terms of challenge. Secondary appraisal was assessed with

four items, developed by Lazarus and Folkman, which describe coping options. Subjects indicated the extent to which the situation was one "that you could deal with or do something about", "that you had to accept", "in which you needed to know more before you could act", and "in which you had to hold yourself back from doing what you wanted to do". Each of these items were rated on a seven-point rating scale (1=disagree strongly; 7=agree strongly). Each secondary cognitive appraisal item was used alone in the analysis because reliability alpha's were less than .20 when a scale was attempted.

Coping

Lazarus and Folkman (1984) define coping as "constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person" (p. 141). Coping was measured using the revised Ways of Coping Questionnaire (WOC) designed by Lazarus and Folkman (1984) which describes a range of cognitive and behavioral strategies individuals may utilize when confronted with a stressful situation. The WOC questionnaire asks individuals to identify a specific stressful situation (in this study, the situation was forthcoming job losses announced by the regional health care authority) and rate on a 4-point scale (1 = not used; 4 = used a great deal) their reliance on specific coping responses. The 67-question WOC questionnaire was revised to include only 54 questions based on a factor analysis performed by Lazarus et al. (1986) and face validity by the researcher.

As shown in Table 4.1, the WOC checklist separates the specific coping strategies into eight subscales: confrontive coping, which describes aggressive efforts to alter the situation and suggests some degree of hostility and risk-taking; distancing, which describes efforts to detach oneself and/or creating a

TABLE 4.1

WAYS OF COPING SUBSCALES

Confrontive Coping (α=.5729)
I tried to get the person responsible to change their mind
I expressed anger to the person(s) who caused the problem
I let my feelings out
I expressed anger toward other people
I stood my ground and fought for what I wanted

Distancing (α=.6457)
I went on as if nothing has happened
I tried to forget the whole thing
I didn't let it get to me; refused to think about it too much
I made light of the situation; refused to get too serious about it
I felt that time would make a difference; the only thing to do was wait
I waited to see what would happen before doing anything

Self-Control (α=.5783)
I tried to keep my feelings to myself
I kept others from knowing how bad things were/are
I kept a stiff upper lip
I accepted it, since nothing can be done
I tried to keep my feelings from interfering with other things too much

Seeking Social Support (α=.6644)
I tried to talk to someone to find out more about the situation
I asked a relative or friend I respect for advice
I talked to someone about how I am feeling

Accepting Responsibility (1 item)
I promised myself that things will be different next time

Positive Reappraisal (α=.7867)
I tried to find something positive from the situation
I was inspired to do something creative
I changed or grew as a person in a good way
I rediscovered what is important in life
I changed something about myself

TABLE 4.1 (cont.)

WAYS OF COPING SUBSCALES

Escape-Avoidance (α=.7402)
I started using drugs such as cocaine, or increased my usage of such drugs
I hoped a miracle would happen
I smoked more cigarettes than usual for me
I got away from it for awhile; tried to rest or take a vacation
I ate more food than usual for me
I avoided being with people in general
I drank more alcohol than usual for me
I refused to believe that it will happen
I took prescription medications, such as nerve pills or sleeping pills
I wish I could change what is about to happen or how I feel about it
I wished the situation would go away or somehow be over with
I have fantasies or wishes about how things might turn out
I jogged or exercised
I ate less food than usual for me

Planful Problem Solving (α=.7729)
I concentrated on what I had to do next, the next step
I tried to analyze the problem in order to understand it better
I made a plan of action and followed it
I changed something so things would turn out all right
I drew on my past experiences; I was in a similar situation before
I knew what had to be done so I doubled my efforts to make things work
I prepared myself for the worst
I tried to see things from the other person's point of view

positive outlook; self-control which describes efforts to regulate one's own feelings and actions; seeking social support which describes efforts to seek informational, tangible, and/or emotional support; accepting responsibility, which acknowledges one's own role in the problem with a commitment of trying to put things right; escape-avoidance, which describes wishful thinking and behavioral efforts to escape or avoid the situation; planful problem-solving, which describes deliberate problem-focused efforts to alter the situation coupled with an analytic approach to solving the problem; and positive reappraisal, which describes efforts to create positive meaning by focusing on personal growth. Forty-seven of the fifty-four coping strategies were used to formulate the eight subscales based on face validity and alpha reliability scores for each subscale. Alpha's for the eight subscales ranged from .57 - .79 as shown in Table 4.1. However, it is important to note that the accepting responsibility subscale only consisted of one item and therefore results based on this subscale should be used with caution.

Social Support

Mobilization of social support has been found to occur in stressful situations to aid in avoiding or minimizing distress. Social support encompasses sharing feelings, soliciting advice, receiving tangible help, and information giving.

Social support was measured using an abbreviated version of Sarason, Levine, Basham, & Sarason's (1983) Social Support Instrument, which included five items of the originally published 27 items. This instrument measures two dimensions of social support: perceived availability and perceived satisfaction. The shortened instrument asks questions such as "Whom can you really count on when you need financial help?" "Whom can

you count on to console you when you are very upset?" The items ask the subject to list up to four people to whom they can turn to or rely on, identify their relationship to that person, (ie. spouse, co-worker, etc.) and then indicate overall, how satisfied they are with these social supports. Finally, the respondents are asked whether or not each type of social support was usually offered by the person(s) or requested by the respondent. This last part is not included within Sarason et al's. Social Support Instrument but was added by the researcher. The researcher felt that eliciting whether the support was offered or requested was an important measurement of satisfaction. It was anticipated that if the subject continually requested support, they would report lower levels of satisfaction with that support, in contrast to offered support. However, the correlation between satisfaction and offer/request was non-significant. The offer/request variable was not included in the regression due to the low response to these questions, which corresponded with a low N in the regression analysis.

Three scores were computed for social support: satisfaction (S), the number of supports (N), and whether the support was offered or requested (OR). As per the Sarason et al. instrument, satisfaction was rated on a 7-point scale (1=not at all satisfied; 7=very satisfied) and the number of supports were computed based on the number of social supports identified by the respondents for each of the five items. The alpha coefficient of internal reliability for the N scale was .97 and for the S scale was .94 (Saranson et al., 1983). A social support scale was formulated by first multiplying the number of supports (N) by the satisfaction with supports (S) for each of the five items. The five items were then added together and divided by five to formulate the social support scale, which had a reliability alpha of .71. The offered/requested variable was deleted from the scale for reasons mentioned above.

CONTROL VARIABLES

Control variables included in this study are socio-demographic and work variables such as previous experience with bumping and/or lay-offs, number of dependent children, and years of nursing experience. In a meta-analysis (Blegen, 1993) of nurses' job satisfaction, many of these control variables have been found to have moderate to low correlations with job satisfaction (at the .20 - .40 level).

The importance of past experience when studying stress and coping has been scarce in the literature. Past experience in terms of familiarity with the stressor is considered as a moderator of the response to the stressor. It is postulated that past exposure and practice in dealing with the situation can reduce uncertainty and therefore modify the reaction to the stressor. Lazarus and Folkman (1984) assert that problem-solving skills are drawn from resources such as past experience with a similar event. It can be anticipated that if a nurse has been previously laid-off or bumped, they will be able to draw on that previous experience and coping style which may enable them to deal with the impending job loss or job displacement situation.

Prior to the study, a pretest of the questionnaire was carried out on 25 nurses. The pilot instrument determined item clarity, response variance, and estimated the reliability and validity of the questionnaire. Wording, sentence structure, and item selection was revised based on the pretest results.

PROCEDURE

Following approval from the Royal Alexandra Hospital Investigational Review Committee and the Research Ethics Committee of the Department of Sociology, University of Alberta, the principal investigator attended the February program manager meeting to present the purpose of the study,

answer any questions or concerns the managers may express, and gain their support for the relative importance of the study. A large poster was affixed on each nursing unit and on the staff bulletin boards throughout the hospital. As well, a memo was placed on the hospitals electronic mail bulletin which is accessible by all hospital staff. The posters and the electronic mail introduced the researcher, the purpose of the study, and length of time the study will transpire. The researcher conducted the quantitative survey at the hospital over a five-week period to cover the variety of shifts and work-load. The questionnaires were distributed to each nursing unit and were replenished as needed (see Appendix A for a copy of the questionnaire).

This self-administered survey was fielded prior to the distribution of pink slips, during the time of anticipation of impending lay-offs from March 13, 1995 to April 17, 1995. On Monday, March 13, 1995, the day the surveys were delivered to each unit, coincidentally the health care budget was due to be announced that evening. On the six o'clock ITV News, the Capital Health Authority announced that 2,300 health care workers faced layoff, of which 340 were to be registered nurses and licenced practical nurses. Although the announcement of more layoffs was unexpected, it did prove to be an opportune time to measure job uncertainty, the real thrust of this study.

The survey took approximately 30-40 minutes to complete as per the pilot study. The last page of the survey asked respondents if they would consent to participate in interviews for a future research project (see Appendix B). If so, they were instructed to provide their name and phone number for further contact in the forthcoming interview phase of a further study. The subjects were instructed to remove the last page of the questionnaire and place it in an envelop separate from the survey in order to ensure anonymity and confidentiality of their answers. The questionnaire informed the subject that

they may or may not be called for the interview phase of the study.

After the first week of the survey, the number of completed surveys dropped from 107 at the end of week one to 81 the following week. Although it is not unusal for participation to drop the researcher made arrangements with each program manager to provide five minute inservices to the nursing staff on each unit to prevent the number of responses from dropping too drastically. The inservices served to present the study on a personal basis and answer any questions the participants may have had regarding the study. The inservices also provided insight into the reasons for the low response (about 27% of all nurses employed at the hospital).

Several misconceptions about the researcher and the study were identified during the inservices. It was found that several factors were inhibiting nurses from completing the surveys. One factor was a misunderstanding about who the researcher was. Nurses believed that the researcher was employed by the hospital or by the Capital Health Authority to promote and conduct research on how nurses are coping with their jobs on behalf of the hospital, and in no way were they going to participate in a study that was funded by the hospital.

Time appeared to be another contributing factor to the low number of completed questionnaires. Four of the 24 units refused to have inservices, citing that they do not have even five minutes to spare, and on some units only one or two nurses were able to attend. Several nurses felt that the study was a waste of their precious time which was already spread too thin. One nurse was quoted as saying, "Patient care comes first and we barely have time for that, let alone time to fill out your survey." Length of the survey was also reported by some nurses as a deterrant to filling it out. It took at least 30 minutes and some felt that they didn't have the time to spare and didn't want to take it

home with them. I received such comments as, "Nurses have no time to fill out your survey. If you take this to Klein he will make further cuts to health care saying that if we had time to fill out a 30 minute survey then there are too many nurses." When asked if the nurses would consider taking the survey home to complete, most nurses felt that this was not acceptable. "Who wants to think about work once you leave this mess." "I try not to take work home with me. I keep my family life and work life separate." "If I fill out the survey at home while eating breakfast, then go to work, it will depress me the rest of the day."

Other nurses felt total apathy. Comments such as "Why should we bother filling out the survey? Nothing will change." Another nurse commented that, "We never get the results after spending our own time filling them out, so it's no use wasting our time and energy." Generally nurses felt that nothing would be done with the results and therefore why bother completing the survey.

Nurses were very interested in what I could do for them, instead of what they could do for themselves. Most nurses were interested in what would happen with the results, however, did not want to partake in the survey itself. After hearing their voiced concerns, the nurses were assured that once the results are compiled and written up, a copy of the study would be given to the hospital to be placed in the reference library and also a shortened version of the study findings would be published in the bimonthly hospital newsletter, The Links. Nurses were also informed that depending on what the results showed, a copy of the findings would also be given to the Alberta Health Minister and the Premier of Alberta. I informed the nurses that without their participation there would be no results to present to the higher authorities, and that their input was imperative. This seemed to ease some of the

misconceptions about what would happen with the results of the surveys.

An unexpected problem which arose and had to be dealt with on one of the units was a breach of confidentiality. Apparently some individuals had been tearing open the sealed envelopes, reading the nurses responses, and then resealing the envelopes with surgical tape. This breach of confidentiality hindered the number of responses from this unit, which employs over 120 nurses. This incident was discussed between nurses and a concensus was formed to cease completing the surveys. When this incident was brought to the attention of the researcher a unit meeting was called in order to discuss how we could resolve the situation and encourage nurses to complete the surveys. A mutual solution was agreed upon resulting only in an increased response of five surveys.

Another purpose of the inservices were to identify factors which promoted participation in the study. Certain units were very eager to fill out the surveys. When asked why, nurses replied that their program manager was very keen about the topic and gave nurses time to complete the surveys. Other units stated that they were used to being involved in research studies and it was just sort of expected of them. It was all part of the work routine. Another unit commented that there had been a lot of bumping on their unit and nurses were sick and tired of sitting back and being silent. They needed some outlet to vent their frustrations.

Overall, the inservices tended to alleviate some of the above mentioned misconceptions and allowed nurses the opportunity to ask the researcher questions. There were a few positive comments made following the inservices. One nurse came up to me after the inservice and said, "I can honestly say I was very negative when I first saw the poster (labelled Job Stress Survey). I thought why should I help someone get a degree, when no one is helping us. I

see now that that was a very selfish way of looking at it." Nevertheless, following the inservices, participation continued to drop. However, at least four units filled out four or more questionnaires that had previously had a response of zero.

The Researcher's General Impressions

In general, it appears that nurses working on the nursing units are quite overworked, stressed, apathetic, and angry. They are feeling that they are lacking control over their own working environment. No matter what they do and how hard they do it, nothing will change, especially nothing for the better. When I discussed the survey with nursing staff, my reception was seldom positive. I saw rolling of eyes, heard sarcastic remarks, felt the aggresion in the tone of their voices, and saw a lot of clock-watching. One nurse said to me, "If you can't get rid of my stress today, you can't help me." Another said, "I am too stressed to think about how stressed I am." And, "I am too stressed to fill out your survey. How's that for stress? Put that in your survey." This is how I observed the working environment to be during my biweekly visits to each unit to collect and replenish the questionnaires. It is important to note that the hostile environment and this general feeling of anger may affect the results of the study. The nurses attribution of poor health to their work may be self-serving and intentional.

METHODS OF ANALYSIS

Three different methods of analysis will be employed in this research: univariate analysis such as frequencies, percentages, and means as appropriate; bivariate analysis such as correlations; and multiple regression analysis. The analysis of the data proceeds as follows.

Descriptive analysis such as frequencies, percentages, and means were computed for perceived likelihood of job loss, job displacement, and for the nurse survivor, stressfulness of working circumstances, mental and physical health, cognitive appraisal (primary and secondary), coping, social support, sex, age, marital status, breadwinner status, number of dependent children, employment status, shiftwork, years of nursing experience, unit type, level of education, and previous experience with lay-off and bumping.

Stressfulness of working circumstances will be determined by analyzing the perceived stressfulness of each potentially stressful situation, the frequency of the situation, and the composite scores (stressfulness multiplied by the frequency). In order to determine how stressful each situation is perceived to be, in relation to other situations, mean response scores will be calculated for each situation. Each situation will then be rank-ordered according to the mean scores of the perceived stressfulness of the situation. Mean scores will also be calculated for the composite scores. The composite scores for each nurse will be utilized for all subsequent data analysis.

Inferential statistics such as multivariate linear regression will be used. The main focus of analysis here will be on the evaluation of the overall dependence of stress, physical health, and mental health on a set of independent variables (job uncertainty, nurse survivor, and potentially stressful working circumstances) while controlling for cognitive appraisal, coping, social support, previous experience with either layoff and/or bumping, number of dependent children, and years of nursing experience.

CHAPTER SUMMARY

In this chapter, the methodology of the study has been described including the research design, operationalization and conceptualization of the variables, procedure, and methods of analysis. In the following chapter, the univariate, bivariate, and multivariate findings of the study are reported.

CHAPTER FIVE
RESEARCH FINDINGS

INTRODUCTION

This chapter begins with a brief look at some of the characteristics of this sample of registered nurses. The statistical analysis follows and is divided into three sections based on the dependent variables: stress, physical health, and mental health. A descriptive, bivariate, and multivariate analysis is reported for each of the three dependent variables. A brief look at how coping is influenced by cognitive appraisal and job status closes the chapter, followed by a brief chapter summary.

A LOOK AT WHO THE RESPONDENTS ARE?

This chapter begins with a portrait of the registered nurses who participated in this study. A total of 271 registered nurses employed at the Royal Alexandra/Charles Camsell Hospital in Edmonton, Alberta returned completed questionnaires. This section presents some of the characteristics of the 13 (4.9%) male and 255 (95.1%) female respondents (refer to Table 5.1).

Age

The age variation is quite diverse with a range of 22 to 60 years of age and a mean age of 38.1 years. More specifically, 18% (47) were 22 to 29 years of age, 36% (92) were between the ages of 30 and 39 years, 35% (89) were 40 to 49 years of age, and 11% (28) were 50 years and older.

Marital Status

The majority of the nurses (72%) at the time of the study were married

or living common-law, followed by never married (16%). The remaining nurses (11%) were separated, divorced, or widowed.

Breadwinner Status

Almost 36% (96) of nurses identified their spouse as the primary breadwinner in the household, whereas 53% (143) identified themselves as the primary breadwinner. Nine percent (25) listed joint ownership of the breadwinner status.

Dependent Children

Just over 40% (106) of the nurses had no dependent children living at home with them. Of those nurses with dependent children, 20% (53) had one dependent child at home, 25% (66) had two dependent children at home, and 14% (36) had three or more dependent children living at home.

Employment Status

The majority of nurses (59%) reported working permanent full-time, 27% reported working permanent part-time, 9% were on recall, and 4% were employed on a casual basis.

Shiftwork

Almost 61% (164) of the nurses worked either an 8, 10, or 12 hour rotating shift. The remaining nurses worked a permanent day, evening, or night shift.

Years of Nursing Experience

The number of years as a nurse varied, ranging from 1 to 40 years. The

average number of years of nursing experience was almost 15 years.

Unit Type

Nurses can specialize in a number of different areas in the hospital. The sample included nurses from all areas of the hospital. Almost 34% (89) of the nurses participating in the study worked in one of the three critical care areas: either in Emergency, Neonatal Intensive Care, or Adult/Cardiac Intensive Care. Nurses working on a medical floor accounted for 18% (47) of the sample. Fourteen percent (38) of the nurses were working on a surgical floor, 15% (41) worked on Obstetrics and Gynecology, 3% (9) from the Operating Room and Recovery Room, and 3% (7) worked on Pediatrics. The remaining nurses worked in a variety of different areas such as Psychiatry, School of Nursing, Radiology, Outpatient Department, Pre-Admission Clinic, IV team, and the Family Clinic. These nurses comprise the "other" group and made up 13% (35) of the sample.

Education

The highest level of nursing education completed by the majority of the nurses (212) was a Registered Nurse Diploma either with or without a certificate. Only 11% (54) had earned a University degree which is a minimum of a Bachelor degree. Of those with University degrees, 49 had a Bachelor's degree and 5 had a Master's degree. At the time of the study, 85% (228) were not enrolled in an educational program in comparison to 15% (41) who were currently enrolled in an education course or program leading toward either a certificate or degree.

Past Experience

In early 1993, the Charles Camsell and Royal Alexandra Hospitals merged and with the merger, nurses and programs were transferred between the two hospitals. When asked if they had ever been laid off from the Royal Alexandra or Charles Camsell hospital, 22% (59) nurses responded yes. Of these nurses that have been laid off, 70% (41) had been laid off once, 29% (17) had been laid off twice, and 2% (1) had been laid off three times. When asked if they had ever been bumped out of their nursing position at either the Royal Alexandra or Charles Camsell hospital 30% (79) responded yes. The number of times bumped out of their nursing position ranged from once to seven times, with an average of 2 times. Of those nurses that have been bumped, 49% (39) had been bumped once, 27% (21) nurses had been bumped twice, 17% (13) had been bumped three times, and 8% (6) had been bumped four or more times.

Job Status

When asked "How likely is it that in the next round of lay-off notices, you will be laid-off or bumped without bumping privileges, resulting in unemployment?" 39 (15%) of the 269 nurses responded that it was "very likely." Almost the same number of nurses (38) felt that it was "very likely" that they would be laid-off or bumped without bumping privileges resulting in recall status. Forty-two nurses (16%) reported that it was "very likely" that in the next round of layoffs, they would either be bumped or laid off from their position and displaced to another position. It is interesting to note that of the 268 nurses who responded to the job security question, only 27 nurses (10%) felt "very secure" with their position on their unit.

TABLE 5.1

CHARACTERISTICS OF THE PARTICIPANTS IN THE STUDY

Characteristics	Percent	N
Total	100.0	271
Sex		
Male	4.9	13
Female	95.1	255
Age		
22-29	18.4	47
30-39	35.9	92
40-49	34.8	89
50 & over	10.5	28
Marital Status		
Married/Common Law	72.2	195
Never Married	16.3	44
Other (Separated, Divorced, or Widowed)	11.4	31
Breadwinner Status		
Spouse	35.8	96
Self	53.4	143
Both	9.3	25
Dependent Children		
0	40.6	106
1	19.6	53
2	25.3	66
3 or more	13.8	36
Employment Status		
Full-time	58.7	159
Part-time	27.3	74
Recall	8.5	23
Casual	4.4	12

TABLE 5.1 (cont.)

Characteristics	Percent	N
Shiftwork		
Rotating	60.9	164
Permanent	33.5	88
Other	5.6	15
Nursing Experience (in years)		
01-10	43.2	117
11-20	30.2	82
21-30	22.9	62
31 & more	3.3	10
Area of Hospital		
Medicine	17.5	47
Surgery	14.2	38
Obstetrics & Gynecology	15.3	41
Critical Care	33.6	89
Pediatrics	2.6	7
Operating Room	3.4	9
Other	13.4	35
Education		
Diploma	78.8	212
Bachelors	18.2	49
Masters	1.9	5
Education Program		
Yes	15.2	41
No	84.8	228
Past Experience		
Layoff	21.9	59
1	69.5	41
2	28.8	17
3	1.7	1

TABLE 5.1 (cont.)

Characteristics	Percent	N
Past Experience		
Bumping	29.3	79
1	49.4	39
2	26.6	21
3	16.5	13
4 or more	7.7	6
Job Status		
(very likely)		
Unemployed	14.5	39
Recall	14.3	38
Displaced	15.7	42
(very secure)		
Nurse Survivor	10.1	27

STRESS AND STRESSORS

How much stress do nurses report in these times of fiscal restraint during the transformation of the current Alberta health care system? What are the contemporary job stressors that acute care hospital nurses are experiencing? What are the different stressors among those nurses facing job loss and job displacement, and for the nurse survivor? What role do cognitive appraisal, coping, and social support play in influencing nurses' perceptions of stress? These questions are addressed in this section.

Stress: A Descriptive Analysis

The mean perceived levels of stress are displayed in Table 5.2 for the whole sample, the nurses who comprise the three job uncertainty groups, and the survivors. The job uncertainty groups includes those nurses who perceive the likelihood of job loss without bumping privileges resulting in unemployment, job loss without bumping privileges resulting in recall, and job loss with bumping privileges resulting in job displacement. The respondents who circled the "very likely" response were the only respondents included in this portion of the analysis. This restriction increases the probability that each each group is mutually exclusive.

The mean level of perceived stress for the whole sample (N=270) was 3.30 (on a scale from 1=not at all stressed to 5=extremely stressed), which reveals that on the average, nurses were at least moderately stressed. Nurses with the highest level of perceived stress (Mean=3.90) were those nurses who perceived that in the next round of lay-offs they were very likely to be laid off without bumping privileges resulting in unemployment. The nurses with the second highest level of perceived stress (Mean=3.77) were those nurses who perceived a high likelihood of layoff without bumping privileges resulting in

TABLE 5.2

MEAN LEVEL OF STRESSFULNESS OF VARIOUS ASPECTS OF THE WORK SITUATION AND MEAN LEVEL OF STRESS REPORTED BY ALL NURSES AND BY GROUPS OF NURSES REPORTING THAT IT IS VERY LIKELY THEY WILL BE UNEMPLOYED, PUT ON RECALL, DISPLACED, OR BE A SURVIVOR

	All Nurses (N)	Unemploy (n)	Recall (n)	Displaced (n)	Survivor (n)	n/N
STRESS	3.30 (270)	3.90 (39)	3.77 (37)	3.46 (41)	3.15 (27)	144/270
STRESSOR						
Resources	3.57 (270)	3.67 (39)	3.61 (38)	3.60 (42)	3.78 (27)	146/270
Demands	3.76 (270)	3.97 (38)	3.86 (37)	3.88 (42)	3.74 (27)	144/270
Job Respons	3.08 (270)	3.18 (38)	3.32 (37)	3.33 (42)	3.07 (27)	144/270
Conflict	3.32 (270)	3.34 (38)	3.43 (37)	3.60 (42)	3.04 (27)	144/270
Knowledge & Skills	3.43 (270)	3.63 (38)	3.78 (37)	3.63 (42)	3.59 (27)	144/270
Lack of Dr. Communicat	3.46 (270)	3.55 (38)	3.59 (37)	3.57 (42)	3.33 (27)	144/270
Time-Off	2.75 (266)	2.84 (37)	2.78 (37)	3.02 (41)	2.85 (27)	142/266
Inexp. RN's	3.73 (271)	3.44 (39)	3.53 (38)	3.48 (42)	3.41 (27)	146/271
Workload	3.63 (271)	3.79 (39)	3.79 (38)	3.83 (42)	3.41 (27)	146/271
Death	3.40 (270)	3.67 (39)	3.65 (37)	3.71 (42)	2.85 (27)	145/270
Co-Worker Bumped	3.34 (270)	3.66 (38)	3.68 (38)	3.38 (42)	2.85 (27)	145/270
Future Job Loss	4.29 (270)	4.56 (39)	4.49 (37)	4.51 (41)	4.11 (27)	144/270
No time for Emotional Support (pt)	3.74 (269)	3.97 (39)	3.97 (37)	3.90 (41)	3.73 (27)	143/269
RN Replace	4.13 (270)	4.18 (39)	4.19 (37)	4.27 (41)	3.78 (27)	144/270

Stressfulness is rated on a 5-point scale where
1.0 is defined as: not at all stressed; not at all stressful
2.0 is defined as: slightly stressed; slightly stressful
3.0 is defined as: moderately stressed; moderately stressful
4.0 is defined as: quite stressed; quite stressful
5.0 is defined as: extremely stressed; extremely stressful

recall. Nurses perceiving a high likelihood of job displacement follow in third place (Mean=3.46). Nurse survivors, those nurses who were very secure because of their seniority, reported the lowest level of perceived stress (Mean=3.15). What this tells us is that the perception of job uncertainty magnifies perceived levels of stress and that nurses with high job seniority enjoy lower levels of perceived stress.

Stressors: A Descriptive Analysis

Again using the "very likely" and "very secure" respondents, perceived stressfulness of various aspects of the job situation are presented in Table 5.2 for the whole sample and then for each of the four job status groups in order to rank how stressful each situation was perceived to be. Table 5.3 displays the ranking of each potentially stressful job situation. I have already noted that nurses were at least moderately stressed in their working environment and the following data will reveal which work factors contribute most to their perceived stress.

The most stressful situation for all nurses combined was the possibility of future job loss. This was also the most stressful for each of the four job status groups. The second most stressful situation also had to do with the concept of job insecurity; the realization that nurses may be replaced with nursing attendants. The possibility of being replaced was stressful for all nurses combined and also for all four job status groups with the mean ranging from 3.78 for the nurse survivors to 4.27 for the potentially displaced nurses. It is also important to note that lack of resources in the working environment also ranked as second most stressful for the nurse survivor.

For nurses as a whole, the third most stressful situation reported was the inability to satisfy demands of doctors, patients, and other health professionals.

TABLE 5.3
RANKING OF STRESSORS

	All RNs	Unemploy	Recall	Displaced	Survivor
First Stressor	nurses are faced with the possibility of future job loss	nurses are faced with the possibility of future job loss	nurses are faced with the possibility of future job loss	nurses are faced with the possibility of future job loss	nurses are faced with the possibility of future job loss
Second Stressor	hear talk that nurses may be replaced with nursing attendants	hear talk that nurses may be replaced with nursing attendants	hear talk that nurses may be replaced with nursing attendants	hear talk that nurses may be replaced with nursing attendants	hear talk that nurses may be replaced with nursing attendants **and** insufficient resources
Third Stressor	unable to satisfy demands of health care workers	unable to satisfy demands of health care workers **and** no time to provide emotional support to patients	no time to provide emotional support to patients	no time to provide emotional support to patients	unable to satisfy demands of health care workers
Fourth Stressor	no time to provide emotional support to patients	heavier workload	unable to satisfy demands of health care workers	unable to satisfy demands of health care workers	no time to provide emotional support to patients
Fifth Stressor	working with inexperience nurses	dealing with death **and** insufficient resources	heavier workload	heavier workload	working with nurses with insecure knowledge and skills

This was also true for the nurse survivors. The inability to satisfy demands was also stressful for the potentially unemployed; however, insufficient time and resources to provide emotional support to patients and families was ranked as equally stressful. The third most stressful situation for the remaining two groups, the potential recall group and the potentially displaced, was insufficient time and resources to provide emotional support to patients and their families.

The fourth most stressful situation for the overall sample as well as for the nurse survivors was insufficient time and resources to provide emotional support to patients and their families. For the potentially unemployed, workload was reported as stressful. The inability to satisfy conflicting demands among doctors, patients, and other health professionals ranked fourth for the potential recall group and for the potentially displaced.

Working with inexperienced nurses was ranked fifth in perceived stressfulness by the sample. The recall and the potentially displaced groups reported increased workload as the fifth most stressful situation. For those senior nurses, working with nurses who are insecure with their knowledge and skills was stressful. Dealing with death and dying and having insufficient resources were equally stressful situations for those nurses who were very likely to become unemployed.

In reviewing the ranking of job stressors, it has been shown that the two most stressful situations for all nurses was the issue of job uncertainty, regardless of whether or not their job was in jeopardy. However, it is interesting to note that there was relatively little difference between the third, fourth, and fifth rankings of the potentially stressful aspects of nursing work for the overall sample and for each of the four groups.

In order to determine whether or not significant job stressors have been omitted from the analysis of potentially stressful work situations, nurses were

asked to explain in an open-ended question what it was about the nursing profession that they found to be the most stressful at that time. Thirty-eight different stressors were identified by a total of 258 nurses. Of the 258 respondents, 47% stated that job uncertainty was the most stressful. The next most common responses were substantially lower in frequency. Workload (6%), decreased resources (4%), fewer staff (4%), and rapidity of change (4%). Once again it is apparent, this time through open-ended questions, that job uncertainty was the number one stressor in nursing work.

A Bivariate Analysis

Bivariate correlations for stress, cognitive appraisal (primary and secondary), and social support are presented in Table 5.4. The bivariate correlations reveal that primary cognitive appraisal and perceived level of stress were positively correlated indicating that the more threatened an individual was, the higher their perceived level of stress.

Three different forms of secondary cognitive appraisal were correlated with stress. Appraising the impending job loss situation as being amenable to change, that is, as something you could deal with or do something about, was negatively correlated with stress indicating that the more strongly an individual agreed that they could deal with the situation, the lower amount of stress they reported. If the impending job loss situation was appraised as requiring acceptance, this form of secondary appraisal was not significantly correlated with stress. And when individuals had to hold themselves back from doing what they wanted to do, this form of secondary appraisal was positively correlated with stress. This analysis reveals that when the impending job situation was perceived as a challenge that one could deal with, stress was reduced. When the situation was threatening or constraining, stress was

heightened. The bivariate correlations in Table 5.4 also indicate that social support (general social support scale which includes financial support, emotional support, and informational support) and perceived stress had a non-significant correlation.

TABLE 5.4

BIVARIATE CORRELATIONS, MEANS, AND STANDARD DEVIATIONS OF STRESS, COGNITIVE APPRAISAL (Primary and Secondary), AND SOCIAL SUPPORT

	1	2	3	4	5	6
1 Stress	1.000					
2 Primary Threat	.311**	1.000				
3 Secondary Deal with	-.180**	-.163**	1.000			
4 Secondary Accept	.007	-.038	.048	1.000		
5 Secondary Hold back	.125*	.148**	-.119*	-.004	1.000	
6 Social Support	-.043	-.002	.102**	-.080	-.102*	1.000
Mean	3.300	2.392	2.862	4.946	4.156	18.287
SD	0.942	0.947	1.862	1.802	1.809	5.321

N = 270 Note: * $p<.05$ one-tailed; ** $p<.01$ one-tailed

Multivariate Regression Analysis

In order to assess the relationship between stress and the predictor variables (job status, job stressors, primary appraisal, secondary appraisal, coping, and social support) each set of variables was entered separately in the regression analysis. On the first step, the job status variables (which measures the perceived likelihood of unemployment, recall, displacement, and the nurse survivor on a 7-point scale where 1=not at all likely and 7=very likely) were entered, followed by job stressors (job security stressors and work environment stressors) on the second step, primary and secondary appraisal on the third step, coping strategies on the fourth step, social support on the fifth step, and the four control variables (number of dependent children, years of nursing experience, previous layoff (coded as a dummy variable; 0=no, 1=yes), and number of times bumped) on the sixth and final step. Step 6 represents the complete multiple regression model. Table 5.5 reports the zero-order correlation (r), unstandardized regression coefficient (b), standard error (SE), the standardized multiple regression coefficient (beta), and the significance for each of the variables. Respondents with missing data for any of the variables entered into the regression equation were deleted listwise leaving data from 226 nurses for use in the regression analysis.

It was predicted that nurses who appraise the health care reform as challenging will report lower levels of perceived stress. Social support was also predicted to be correlated with lower levels of self-reported stress. To test these hypotheses, hierarchical multiple regression was performed with stress as the dependent variable.

The results in Table 5.5 show that the effects of job status, cognitive appraisal, and social support were not significant. On the other hand, the most striking finding was that both job stressor categories (job security and the work

TABLE 5.5

MULTIPLE REGRESSION OF PERCEIVED LEVEL OF STRESS ON JOB STATUS, JOB STRESSORS, APPRAISAL, COPING, SOCIAL SUPPORT, CHILDREN, NURSING EXPERIENCE, BUMPING, AND LAYOFF EXPERIENCE

		Step 1				Step 2				Step 3			
Variables	r	b	SE	Beta	Sig	b	SE	Beta	Sig	b	SE	Beta	Sig
Job Status													
Potentially Unemployed	.203**	.072	.040	.167	.067	.036	.033	.083	.269	.038	.033	.087	.249
Potentially Recall	.132*	-.013	.039	-.029	.744	-.018	.032	-.043	.568	-.017	.032	-.041	.588
Potentially Displaced	-.016	-.012	.027	-.028	.672	-.038	.027	-.094	.093	-.031	.023	-.076	.178
Nurse Survivor	-.173**	-.048	.035	-.109	.174	-.011	.030	-.025	.705	-.004	.030	-.001	.999
Job Stressors													
Job Security	.519**					.071	.013	.350	**.000**	.065	.014	.322	**.000**
Work Environment	.502**					.097	.019	.324	**.000**	.094	.019	.312	**.000**
Primary Appraisal													
Threat	.244**									.051	.057	.051	.369
Secondary Appraisal													
Able to Deal With the Situation	-.226**									-.025	.029	-.051	.378
Have to Accept the Situation	.040									.030	.029	.057	.305
Need More Information	-.111*									-.047	.034	-.078	.161
Have to Hold Back	.138*									.025	.029	.048	.388
Coping													
Accept Responsibility	.063												
Confrontive Coping	.201**												
Distancing	-.107*												
Escape Avoidance	.298**												
Planful Problem Solving	.048												
Positive Reappraisal	-.116*												
Self Control	.147**												
Seeking Social Support	.089												
Social Support	-.071												
Controls													
Number of Dependent Children	-.147**												
Year of Nursing Experience	-.070												
Previous Layoff Experience	.181**												
Number of Times Bumped	.076												
N = 226	*p<.05 **p<.01	R^2=.049				R^2=.361				R^2=.379			

TABLE 5.5 (cont..)

MULTIPLE REGRESSION OF PERCEIVED LEVEL OF STRESS ON JOB STATUS, JOB STRESSORS, APPRAISAL, COPING, SOCIAL SUPPORT, CHILDREN, NURSING EXPERIENCE, BUMPING, AND LAYOFF EXPERIENCE

Variables	Step 4 b	SE	Beta	Sig	Step 5 b	SE	Beta	Sig	Step 6 b	SE	Beta	Sig
Job Status												
Potentially Unemployed	.038	.033	.086	.260	.037	.033	.086	.264	.041	.033	.095	.213
Potentially Recall	-.019	.033	-.044	.571	-.019	.033	-.044	.569	-.009	.033	-.021	.787
Potentially Displaced	-.025	.023	-.062	.278	-.025	.023	-.061	.286	-.032	.024	-.132	.188
Nurse Survivor	-.002	.030	-.004	.996	-.003	.030	-.007	.992	-.026	.032	-.058	.417
Job Stressors												
Job Security	.058	.014	.289	**.000**	.059	.014	.292	**.000**	.060	.014	.299	**.000**
Work Environment	.085	.019	.284	**.000**	.085	.019	.283	**.000**	.088	.020	.292	**.000**
Primary Appraisal												
Threat	.002	.060	.002	.972	.002	.060	.002	.976	.008	.060	.008	.896
Secondary Appraisal												
Able to Deal With the Situation	-.021	.030	-.043	.471	-.020	.030	-.040	.500	-.018	.030	-.036	.552
Have to Accept the Situation	.027	.030	.050	.371	.026	.030	.049	.384	.017	.030	.033	.565
Need More Information	-.028	.034	-.050	.419	-.026	.035	-.044	.445	-.048	.035	-.079	.176
Have to Hold Back	.009	.029	.018	.757	.008	.029	.016	.774	.007	.029	.013	.821
Coping												
Accept Responsibility	-.001	.089	-.001	.987	-.003	.090	-.002	.976	-.002	.089	-.001	.982
Confrontive Coping	.061	.138	.030	.659	.059	.138	.029	.669	.073	.137	.035	.595
Distancing	-.276	.125	-.139	**.028**	-.274	.125	-.137	**.030**	-.306	.126	-.152	**.016**
Escape Avoidance	.304	.184	.122	.100	.304	.184	.122	.100	.288	.185	.115	.121
Planful Problem Solving	.125	.159	.070	.431	.122	.160	.068	.446	.095	.159	.053	.551
Positive Reappraisal	-.216	.126	-.142	.087	-.211	.128	-.139	.099	-.217	.126	-.143	.087
Self Control	.139	.125	.074	.267	.135	.126	.072	.283	.116	.126	.062	.357
Seeking Social Support	-.012	.099	-.009	.905	-.009	.100	-.006	.931	.002	.101	.001	.983
Social Support					-.003	.011	-.015	.802	-.003	.011	-.018	.754
Controls												
Number of Dependent Children									-.047	.045	-.060	.304
Years of Nursing Experience									.008	.007	.071	.235
Previous Layoff Experience									.096	.132	.042	.469
Number of Times Bumped									-.154	.058	-.168	**.008**
N=226	R^2=.412				R^2=.412				R^2=.438			

environment) were positively related to the perceived levels of stress experienced by nurses. These relationships confirm that the more stressful various aspects of the job situation were perceived to be and the more often they occurred, the more likely nurses reported higher levels of perceived stress. The increase in the total amount of variance explained was substantial, adding over 30% to the explained variance when entered in Step 2. This suggests that job stressors were more important in explaining perceived stress than job status, which produced an R^2 of only 4.9% when entered in Step 1.

Among the coping variables, distancing was the only significant coping subscale, illustrating that the higher the use of distancing (i.e., detaching oneself from the situation), the lower the reported stress. When the coping subscales were added to the regression equation on Step 4, the R^2 only increased by 1.8%.

In the final step of the regression equation, the number of dependent children, years of nursing experience, previous layoff experience, and number of times having been bumped were entered as controls. It is noteworthy to mention that breadwinner status and age were initially entered into the regression equation as controls, however, the N decreased substantially (to N=86) and therefore were deleted from the regression equation. But prior to deleting them from the equation it is important to note that they failed to achieve statistical significance ($p>.05$). As shown in Table 5.5 (Step 6), among the control variables, only the number of times bumped was significantly related to stress, suggesting that the higher the frequency of being bumped, the lower the level of self-reported stress.

Step 6 presents the complete multiple regression model. Altogether 20 variables were entered as predictors and four variables as controls. Nonetheless, job stressors (job security and work environment) explained most

of the variance in stress. Nurses reported a higher level of stress when they perceived their job to be insecure and when they felt that the work environment was stressful. Nurses reported a lower level of perceived stress with the use of distancing as a coping strategy and with increased experience with being bumped.

Summary

Through the use of univariate, bivariate, and multivariate analysis, generally nurses have been shown to report at least moderate levels of stress, with work-related stressors such as job insecurity and the lack of time to provide emotional support to patients and their families, as the leading contributing factors in the perception of stress. The univariate analysis revealed that nurses perceive the potential for future job loss and the possibility of being replaced by nursing attendants as primary job-related stressors, with conflicting demands, lack of resources, and workload following closely behind. Both primary appraisal and secondary appraisal were correlated with perceived levels of stress. In the bivariate analysis, social support had no significant correlation with the perception of stress.

In order to enable the researcher to develop a better model of stress, each predictor and control variable was inserted in a hierarchical regression equation to analyze the effect of each variable when controlling for other variables. The regression equation revealed that both job stressors had the strongest association with perceived stress, with previous bumping experience and the use of distance coping also wielding significant associations.

PHYSICAL HEALTH

How healthy are nurses physically? What role do cognitive appraisal,

social support, and coping styles play in influencing nurses' physical health? Is appraisal of the health care situation related to the level of physical health experienced by nurses? These questions are the focus of the following analysis.

A Descriptive Analysis

Respondents were asked to rate their physical health over the past four months on a seven-point rating scale (1=not very healthy; 7=very healthy). Of the 270 respondents, 7% rated their health as "not very healthy" and 10% rated their health as "very healthy." As shown in Table 5.6, the mean level of physical health, as measured by this single item, was 4.3, with a standard deviation of 1.679.

Respondents were also asked to report how often, in the past four months (recoded to 1=always; 5=never), they had experienced any physical symptoms such as tiredness, loss of appetite, irritability, sleeplessness, dizziness, headaches, and muscular aches and pains. The mean for each symptom reveals that tiredness and irritability were the most commonly reported symptoms, with dizziness being reported the least. To create a composite index of physical symptoms, each of the seven symptoms were summed and divided by the number of items to determine the overall level of physical health (Mean=3.15, SD=0.617).

Immediately following these questions on physical symptoms, nurses were asked if they felt that work contributed to any of these health problems, and if so they were to explain in an open-ended format. Of the 269 respondents, 225 (84%) agreed that work contributed to these specific health problems. Thirty percent of the 205 nurses that provided an explanation stated that stress in the workplace contributed to their lower level of physical health. Shiftwork and working short changes (i.e., having only eight hours off

between shifts) was the second highest response (17%) for how the working environment contributed to their health problems. Being overworked and experiencing both mental and physical exhaustion were equally responsible for a change in physical health for 16% of nurses. Other responses included the general negative working environment, an uncertain nursing future, and being on their feet all day with few rest periods.

A Bivariate Analysis

Bivariate correlations for the single-item how healthy physically (HHP), the 7-item physical health scale (PHS), cognitive appraisal, and social support are presented in Table 5.6. Correlational analysis revealed negative relationships between primary appraisal and both measures of physical health (HHP and PHS). This implies that the more a person perceived he/she had at stake (i.e., the more threatened the person was), the lower the level of physical health. More specifically, they perceived themselves to be less physically healthy and experienced more ailments.

None of the secondary cognitive appraisal variables had any significant correlation with how healthy physically (HHP) they have felt in the past four months. However, secondary cognitive appraisal was correlated with the physical health scale (PHS=number of symptoms and frequency of occurrence of physical health problems) suggesting that if the situation was perceived as something that nurses could deal with, they experienced a higher level of health or fewer and less frequent symptoms than those nurses who appraised the health care situation as preventing them from doing what they would like to do and deal with the problem. In other words, an appraisal of challenge was positively correlated with physical health whereas an appraisal of threat or constraint was negatively correlated with physical health.

It is interesting to find that although social support had no correlation with the perception of stress, it did have a positive correlation with how one perceives their level of health and their health symptoms. In this case, social support consists of all aspects of support: financial, informational, and emotional. These correlations strengthen the claim that the number of social supports and the satisfaction with that support have a positive association with physical health.

TABLE 5.6

BIVARIATE CORRELATIONS, MEANS, AND STANDARD DEVIATIONS FOR PHYSICAL HEALTH, PHYSICAL HEALTH SYMPTOMS SCALE, COGNITIVE APPRAISAL (Primary and Secondary), AND SOCIAL SUPPORT

		1	2	3	4	5	6	7
1	**How Healthy Physically**	1.000						
2	**Physical Health Scale**	.590**	1.000					
3	**Primary Appraisal** Threat	-.228**	-.298**	1.000				
4	**Secondary Appraisal** Able to Deal with Situation	.066	.150**	-.163**	1.000			
5	**Secondary Appraisal** Have to Accept the Situation	-.062	-.002	-.038	.048	1.000		
6	**Secondary Appraisal** Have to Hold Back	-.093	-.165**	.148**	-.119*	-.004	1.000	
7	**Social Support**	.267**	.145*	-.002	.102*	-.080	-.102*	1.000
	Mean	4.296	3.150	2.392	2.862	4.946	4.156	18.287
	SD	1.679	0.617	0.947	1.862	1.802	1.809	5.321

N=270 Note: * p< .05 one-tailed; ** p<.01 one-tailed

Multivariate Regression Analysis

Insight into the relationship between physical health and job status, job stressors, cognitive appraisal, coping, and social support can be gained by an examination of Tables 5.7 and 5.8. It was predicted that nurses who appraise the health care reform as challenging will report higher levels of physical health. In order to assess whether job status, job stressors, cognitive appraisal, coping, and social support play a role in the level of physical health of nurses, multiple regression analysis is presented in the form of two regression tables. Responses to the question "How healthy are you physically?" will be regressed on the above mentioned variables, followed by a second regression table, regressing the physical health scale on the same variables. By examining the standardized partial regression coefficients in Tables 5.7 and 5.8, it is possible to determine both the direction and relative magnitude of the relationships between physical health and these predictor variables. These regression equations are used to allow the researcher to assess which variable has the strongest association with nurses' level of physical health, while controlling for other variables. Each variable will be inserted into hierarchical blocks in the same order as was used in the regression of stress.

Multiple Regression of How Healthy Physically

Following an examination of the six steps displayed in Table 5.7, it is shown that when job status was initially entered into the regression equation, the effects fail to reach statistical significance ($p>.05$); however, in Steps 5 and 6, being potentially unemployed had a positive significant association with physical health, suggesting that the potentially unemployed nurses reported higher levels of physical health than the remaining three groups of nurses.

TABLE 5.7

MULTIPLE REGRESSION OF HOW HEALTHY PHYSICALLY ON JOB STATUS, JOB STRESSORS, APPRAISAL, COPING, SOCIAL SUPPORT, DEPENDENT CHILDREN, NURSING EXPERIENCE, BUMPING, AND LAYOFF EXPERIENCE

Variables	r	Step 1 b	SE	Beta	Sig	Step 2 b	SE	Beta	Sig	Step 3 b	SE	Beta	Sig
Job Status													
Potentially Unemployed	.016	.096	.072	.121	.186	.125	.070	.158	.075	.128	.069	.162	.067
Potentially Recall	-.082	-.114	.070	-.147	.106	-.111	.068	-.144	.102	-.123	.067	-.159	.069
Potentially Displaced	-.079	-.049	.050	-.067	.327	-.024	.048	-.032	.625	-.033	.049	-.044	.508
Nurse Survivor	.047	.018	.065	.022	.784	-.006	.064	-.007	.927	-.029	.064	-.036	.653
Job Stressors													
Job Security	-.206**					-.033	.028	-.090	.246	-.017	.029	-.045	.563
Work Environment	-.279**					-.129	.040	-.239	**.001**	-.113	.040	-.209	**.005**
Primary Appraisal													
Threat	-.223**									-.277	.121	-.154	**.024**
Secondary Appraisal													
Able to Deal with the Situation	.108*									.038	.061	.042	.529
Have to Accept the Situation	-.085									-.091	.062	-.094	.147
Need More Information	.033									.026	.072	.023	.720
Have to Hold Back	-.130*									-.072	.061	-.078	.239
Coping													
Accepting Responsibility	-.017												
Confrontive Coping	-.141*												
Distancing	.057												
Escape Avoidance	-.199**												
Planful Problem Solving	-.011												
Positive Reappraisal	.172**												
Self Control	-.081												
Seeking Social Support	-.060												
Social Support	.274**												
Controls													
Number of Dependent Children	.048												
Years of Nursing Experience	.082												
Previous Layoff Experience	-.195**												
Number of Times Bumped	-.051												
N=226	*p<.05 **p<.01	R^2=.020				R^2=.102				R^2=.143			

TABLE 5.7 (cont..)

MULTIPLE REGRESSION OF HOW HEALTHY PHYSICALLY ON JOB STATUS, JOB STRESSORS, APPRAISAL, COPING, SOCIAL SUPPORT, DEPENDENT CHILDREN, NURSING EXPERIENCE, BUMPING, AND LAYOFF EXPERIENCE

Variable	Step 4				Step 5				Step 6			
	b	SE	Beta	Sig	b	SE	Beta	Sig	b	SE	Beta	Sig
Job Status												
Potentially Unemployed	.131	.070	.166	.060	.135	.068	.171	**.047**	.142	.068	.180	**.037**
Potentially Recall	-.109	.068	-.141	.113	-.101	.066	-.131	.130	-.104	.068	-.135	.126
Potentially Displaced	-.057	.049	-.077	.250	-.065	.048	-.089	.175	-.070	.049	-.096	.155
Nurse Survivor	-.022	.063	-.027	.726	-.018	.061	-.023	.765	-.044	.066	-.055	.500
Job Stressors												
Job Security	-.002	.030	-.005	.952	-.020	.029	-.055	.487	-.014	.029	-.038	.634
Work Environment	-.088	.040	-.164	**.028**	-.077	.039	-.142	**.051**	-.069	.040	-.128	.084
Primary Appraisal												
Threat	-.190	.125	-.106	.130	-.173	.121	-.096	.160	-.205	.123	-.114	.097
Secondary Appraisal												
Able to Deal with the Situation	.040	.062	.044	.521	.008	.061	.008	.900	.007	.062	.008	.908
Have to Accept the Situation	-.077	.063	-.080	.220	-.060	.061	-.062	.327	-.071	.062	-.073	.261
Need More Information	.002	.072	.002	.981	-.033	.071	-.030	.640	-.039	.072	-.036	.592
Have to Hold Back	-.039	.062	-.042	.526	-.023	.060	-.025	.700	-.016	.060	-.018	.786
Coping												
Accept Responsibility	.095	.190	.036	.619	.124	.185	.047	.504	.098	.185	.037	.596
Confrontive Coping	-.211	.290	-.056	.468	-.160	.282	-.043	.571	-.109	.283	-.029	.701
Distancing	.252	.264	.069	.341	.196	.257	.054	.446	.208	.259	.057	.423
Escape Avoidance	-.501	.389	-.109	.199	-.504	.378	-.110	.184	-.544	.382	-.119	.157
Planful Problem Solving	-.582	.335	-.178	.084	-.472	.327	-.145	.151	-.427	.329	-.131	.195
Positive Reappraisal	.908	.265	.330	**.001**	.758	.261	.276	**.004**	.727	.260	.264	**.006**
Self Control	-.109	.263	-.032	.681	-.007	.258	-.002	.979	.050	.259	.014	.849
Seeking Social Support	-.147	.209	-.059	.482	-.246	.205	-.098	.231	-.275	.207	-.110	.184
Social Support					.082	.023	.242	**.000**	.079	.023	.235	**.001**
Controls												
Number of Dependent Children									-.013	.094	-.009	.888
Years of Nursing Experience									.008	.014	.040	.560
Previous Layoff Experience									-.628	.272	-.154	**.022**
Number of Times Bumped									.066	.119	.040	.577
N=226	R^2=.204				R^2=.252				R^2=.274			

Among the potential job stressors, only the stressfulness of the work environment had a significant association with the physical health of nurses. Specifically, the more stressful various aspects of the working environment, the lower the level of physical health reported by nurses. However, when controlling for job status, job security stressors, appraisal, coping, social support, and the four control variables, this significant association disappeared.

When the cognitive appraisal variables were added to the regression equation in Step 3, it is found that assessing the situation as threatening was negatively correlated with physical health; however, once again when controlling for other predictor variables, this significant relationship vanished.

Analysis of the standardized partial regression coefficients indicate that positive reappraisal, as a coping strategy, is the most closely related to how physically healthy nurses reported themselves to be. It appears that the more often positive reappraisal (i.e., creating positive meanings by focusing on personal growth) was utilized by nurses, the healthier nurses felt. When coping was added to the regression equation, the variance increased to 20.4% from 14.3%

Social support was shown to have a strong positive association with physical health unlike the non-significant effect when regressed on perceived levels of stress. This positive association with physical health remained significant even when the control variables were added.

Of the four control variables, having been previously laid off from the hospital was the only variable to show a significant relationship with physical health. It appears that lower levels of health were reported by those nurses who had been previously laid off.

In the final regression equation, it has been determined that for nurses, job status (becoming potentially unemployed), positive reappraisal, social

support, and previous layoff contribute more to how physically healthy nurses reported themselves to be than job stressors, cognitive appraisal, and the remaining seven coping strategies. The overall model accounted for 27.4% of variation in how physically healthy nurses are reporting to be.

Multiple Regression of the Physical Health Scale

Table 5.8 displays the regression analysis for the physical health scale. As with the previous regression, none of the job status groups had any significant relationship with the physical health scale scores on the first step. Nevertheless, the potentially displaced group showed a significant relationship in Step 4 and remained significant when controlling for all other predictor and control variables, suggesting that the potentially displaced nurses reported significantly lower levels of physical health.

Among the potential work-related stressors, the work environment was the only stressor that had a significant relationship with the number and frequency of occurrence of physical symptoms. Specifically, after controlling for all other predictor and control variables, nurses still reported experiencing either more physical symptoms and/or a higher frequency of occurrence of symptoms when the working environment was perceived as stressful.

Unlike in the previous regression analysis, primary cognitive appraisal was found to have an enduring negative association with physical health. Therefore, the higher the perceived threat, the greater the number and/or occurrence of general health problems nurses experienced. Of the four secondary appraisal variables entered into the equation at Step 3, none had significant bearing on physical symptoms.

The significance of each standardized coefficient is useful in understanding the relationship between physical health and the predictor

TABLE 5.8

MULTIPLE REGRESSION OF PHYSICAL HEALTH SCALE ON JOB STATUS, JOB STRESSORS, APPRAISAL, COPING, SOCIAL SUPPORT, CHILDREN, NURSING EXPERIENCE, BUMPING, AND LAYOFF EXPERIENCE

Variables	r	Step 1 b	SE	Beta	Sig	Step 2 b	SE	Beta	Sig	Step 3 b	SE	Beta	Sig
Job Status													
Potentially Unemployed	-.163**	-.027	.026	-.093	.301	-.014	.025	-.046	.586	-.010	.024	-.036	.670
Potentially Recall	-.189**	-.042	.025	-.148	.098	-.040	.024	-.142	.094	-.046	.024	-.163	**.051**
Potentially Displaced	-.114*	-.033	.018	-.120	.074	-.021	.017	-.078	.216	-.027	.017	-.101	.112
Nurse Survivor	-.092	-.015	.024	-.049	.538	-.026	.023	-.087	.254	-.034	.022	-.114	.132
Job Stressors													
Job Security	-.290**					-.016	.010	-.119	.111	-.008	.010	-.062	.411
Work Environment	-.360**					-.056	.014	-.281	**.000**	-.047	.014	-.237	**.001**
Primary Appraisal													
Threat	-.279**									-.118	.042	-.178	**.006**
Secondary Appraisal													
Able to Deal with the Situation	.174**									.027	.021	.080	.210
Have to Accept the Situation	-.043									-.018	.022	-.051	.404
Need More Information	.008									.004	.025	.010	.867
Have to Hold Back	-.169**									-.034	.021	-.100	.110
Coping													
Accept Responsibility	-.071												
Confrontive Coping	-.187**												
Distancing	.062												
Escape Avoidance	-.309**												
Planful Problem Solving	-.101												
Positive Reappraisal	.111*												
Self Control	-.129*												
Seeking Social Support	-.123*												
Social Support	.173**												
Controls													
Number of Dependent Children	.101												
Years of Nursing Experience	.137*												
Previous Layoff Experience	-.156**												
Number of Times Bumped	-.031												
N=227	*p<.05 **p<.01	R^2=.052				R^2=.171				R^2=.223			

TABLE 5.8 (cont..)

MULTIPLE REGRESSION OF PHYSICAL HEALTH SCALE ON JOB STATUS, JOB STRESSORS, APPRAISAL, COPING, SOCIAL SUPPORT, DEPENDENT CHILDREN, NURSING EXPERIENCE, BUMPING, AND LAYOFF EXPERIENCE

Variables	Step 4 b	SE	Beta	Sig	Step 5 b	SE	Beta	Sig	Step 6 b	SE	Beta	Sig
Job Status												
Potentially Unemployed	-.008	.024	-.026	.751	-.007	.024	-.024	.751	-.009	.024	-.031	.710
Potentially Recall	-.042	.024	-.148	.076	-.041	.024	-.143	.085	-.039	.024	-.138	.104
Potentially Displaced	-.033	.017	-.121	.055	-.035	.017	-.127	**.043**	-.038	.017	-.140	**.030**
Nurse Survivor	-.034	.022	-.113	.127	-.033	.022	-.110	.133	-.035	.023	-.117	.136
Job Stressors												
Job Security	-.004	.010	-.003	.966	-.003	.010	-.023	.765	-.003	.010	-.025	.748
Work Environment	-.038	.014	-.193	**.006**	-.036	.014	-.182	**.010**	-.031	.014	-.157	**.029**
Primary Appraisal												
Threat	-.075	.043	-.113	.087	-.072	.043	-.108	.098	-.088	.043	-.132	**.045**
Secondary Appraisal												
Able to Déal with the Situation	.029	.022	.088	.175	.023	.022	.070	.283	.026	.022	.079	.229
Have to Accept the Situation	-.015	.022	-.043	.485	-.012	.022	-.034	.575	-.009	.022	-.024	.698
Need More Information	-.006	.025	-.015	.812	-.013	.025	-.031	.613	-.006	.026	-.015	.819
Have to Hold Back	-.018	.021	-.052	.401	-.014	.021	-.042	.500	-.011	.021	-.033	.592
Coping												
Accept Responsibility	.012	.065	.013	.851	.019	.065	.020	.766	.016	.065	.016	.810
Confrontive Coping	-.026	.100	-.019	.793	-.019	.100	-.014	.852	-.017	.100	-.012	.867
Distancing	.159	.091	.118	.083	.147	.091	.110	.107	.155	.092	.115	.093
Escape Avoidance	-.328	.134	-.196	**.016**	-.331	.133	-.198	**.014**	-.346	.135	-.207	**.011**
Planful Problem Solving	-.265	.116	-.219	**.024**	-.246	.116	-.203	**.035**	-.231	.116	-.191	**.048**
Positive Reappraisal	.300	.092	.294	**.001**	.273	.092	.268	**.004**	.269	.092	.264	**.004**
Self Control	-.030	.091	-.024	.739	-.012	.091	-.009	.898	-.018	.092	-.014	.846
Seeking Social Support	-.054	.072	-.058	.459	-.072	.073	-.078	.320	-.071	.073	-.077	.332
Social Support					.015	.008	.124	**.054**	.016	.008	.125	**.053**
Controls												
Number of Dependent Children									.014	.033	.028	.662
Years of Nursing Experience									.007	.005	.088	.181
Previous Layoff Experience									-.122	.096	-.081	.205
Number of Times Bumped									.070	.042	.115	.096
N=227	R^2=.297				R^2=.309				R^2=.331			

variable, with a positive coefficient indicating greater health. Analysis of the beta coefficients indicate that positive reappraisal had the strongest association with the number and frequency of occurrence of physical symptoms, with a standardized coefficient considerably larger than the coefficient for any of the coping strategies. Thus, higher usage of positive reappraisal was associated with fewer and/or less frequent physical symptoms. This finding is analogous to the previous regression analysis of the single-item "How physically healthy?" nurses reported themselves to be. Two additional coping strategies (escape-avoidance and planful problem solving), which were not evident in the previous regression analysis, show significant negative associations with physical health in this analysis. In contrast to the relationship between physical health and positive reappraisal, escape-avoidance coping (i.e., such as wishful thinking and behavioral efforts to escape or avoid the situation) and planful problem solving (i.e., using an analytic approach to solve the problem) were associated with a larger number and/or higher frequency of physical symptoms.

Social support was shown to have a positive association with physical health in the remaining two steps of the equation. This finding is also comparable to the previous regression analysis using the single-item physical health measure.

None of the four control variables made significant contributions in predicting the number and frequency of occurrence of physical symptoms. In the final equation, seven variables were found to be significantly related to physical distress. The variables exercising negative associations with physical health include the potentially displaced nurses, work environment stressors, primary cognitive appraisal, escape-avoidance coping, and planful problem-solving. The only two variables which were positively related to physical

health were positive reappraisal and social support, with positive reappraisal most closely related to physical health. The R^2 value of .331 in the final equation indicates that job status, job stressors, appraisal, coping, social support, dependent children, nursing experience, previous layoff, and previous displacement (bumping) were able to account for 33.1% of variation in the number and frequency of occurrence of physical symptoms.

Summary

The bivariate correlations revealed that primary cognitive appraisal, secondary cognitive appraisal, and social support were significantly correlated with how healthy nurses felt physically. Specifically, primary cognitive appraisal, having to accept the situation, and having to hold oneself back from doing what they wanted to do were all negatively correlated with how physically healthy nurses reported themselves to be. Being able to deal with the situation and social support were both positively correlated with how physically healthy nurses felt. The same results were revealed for the correlation with the 7-item physical health symptom scale with the exception of having to accept the situation which was non-significant.

Since significant relationships between individual predictors and the outcomes were found, it was felt that multiple regression should be employed. Tables 5.7 and 5.8 report regression analyses of the positive relationships of social support and positive reappraisal with both measures of physical health. Two of the four job status groups show significant associations with physical health. Specifically, becoming potentially unemployed had a positive association with the single-item "How healthy physically?" measure, in contrast to the negative association of the potentially displaced nurses with the seven-item physical health variable. The multivariate analysis revealed

negative relationships between physical health and the work environment stressors, primary appraisal, planful problem solving, and escape-avoidance coping.

MENTAL HEALTH

How mentally healthy are nurses? Which variables are significantly associated with the level of mental health of acute care hospital nurses? What role do cognitive appraisal, coping, and social support play in influencing nurses' perceptions of mental health? These questions will form the basis for the following analysis.

A Descriptive Analysis

Respondents were asked "In the past four months, how healthy have you felt mentally?" to which a 7-point rating scale was provided (1=not very healthy; 7=very healthy). Of the 270 cases, 6% (n=17) rated their mental health as "not very healthy" in comparison to 7% (n=19) who rated their mental health as "very healthy" (Mean=4.081, SD=1.636).

Respondents were also asked to report how often during the past week they had experienced symptoms such as couldn't shake off the blues, bothered by things that usually don't bother you, felt depressed, and felt hopeful about the future. Each of these symptoms were rated on a 5-point rating scale (where 1=never and 5=always for positive symptoms). Negative symptoms were reverse coded (1=always and 5=never) so that a high score indicated good mental health. The mean for each of the 20 items ranged from a low of 2.95 (felt hopeful about the future, where 5=always) to a high of 4.28 (thought your life had been a failure, where 5=never). Each of the 20 symptoms were then summed and divided by 20 to determine the overall mean. As shown in

Table 5.9, the mean level of mental health (CESD) was 3.60, with a standard deviation of 0.624.

A Bivariate Analysis

Correlations between responses to the single-item "How healthy are you mentally?" the 20-item CESD, cognitive appraisal, and coping were computed and are presented in Table 5.9. Results show significant positive correlations between both measures of mental health and secondary cognitive appraisal (able to deal with the situation) and social support. Correlational analysis indicated a negative correlation between primary cognitive appraisal and one measure of secondary cognitive appraisal (having to hold myself back from doing what they wanted to do) and both measures of mental health. Appraising the situation as one in which you had to accept was negatively correlated with the single-item "how healthy mentally" however, there was no significant correlation between the 20-item CESD scale and acceptance of the situation.

Primary cognitive appraisal and the CESD had a significant negative correlation. That is, the higher the threat, the lower the level of mental health (i.e., the greater the number and frequency of occurrence of depressive symptoms). Similarly, primary cognitive appraisal and "how healthy mentally" were also correlated, suggesting that the higher the threat, the lower the level of mental health.

Secondary cognitive appraisal has been shown to be related to mental health. It has been demonstrated that the more likely the situation is one that could be dealt with, the higher the level of mental health and the fewer reported symptoms and frequency of occurrence of symptoms. The more likely the situation is one that had to be accepted and that you must hold yourself

back from doing what you wanted to do, the lower the level of mental health and the higher the level of depression.

Correlations were also computed between mental health and social support. Social support was found to be positively correlated with mental health using both forms of measurement. These results indicate that the higher the level of support, the higher the level of mental health and the lower the level of depression.

TABLE 5.9

BIVARIATE CORRELATIONS, MEANS, AND STANDARD DEVIATIONS FOR HOW HEALTHY MENTALLY, DEPRESSION SCALE (CESD), COGNITIVE APPRAISAL (Primary and Secondary), AND SOCIAL SUPPORT

		1	2	3	4	5	6	7
1	**How Healthy Mentally**	1.000						
2	**Depression Scale**	.586**	1.000					
3	**Primary Appraisal** Threat	-.257**	-.450**	1.000				
4	**Secondary Appraisal** Deal with Situation	.121*	.166**	-.163**	1.000			
5	**Secondary Appraisal** Have to Accept	-.099*	-.040	-.038	.048	1.000		
6	**Secondary Appraisal** Have to Hold Back	-.156**	-.241**	.148*	-.119*	-.004	1.000	
7	**Social Support**	.220**	.144**	-.002	.102*	-.080	-.102*	1.000
	Mean	4.081	3.600	2.392	2.862	4.946	4.156	18.287
	SD	1.636	0.624	0.947	1.862	1.802	1.809	5.321

Note: * $p<.05$ one-tailed; ** $p<.01$ one-tailed

Multiple Regression of How Healthy Mentally

Table 6.0 displays the multiple regression analysis for responses to the question "How healthy are you mentally?" on job status, job stressors, cognitive appraisal, coping, social support, and four control variables. The regression was computed in hierarchical format, with job status (unemployed, recall, displaced, and survivor) entered in Step 1 of the regression equation. Results indicate that the job status groups failed to achieve significant associations with mental health and only explained 2.7% of the variance.

With regard to the influence of the job stressors, both the job security stressors and the work environment stressors were negatively associated with mental health. That is, the more stressful a situation was perceived to be, the lower the level of self-reported mental health. The work environment stressors but not the job security stressors maintained their significant association with mental health throughout the analysis.

The analysis also shows that three of the five appraisal variables had a significant negative relationship with mental health when first entered into the regression equation. That is, nurses reporting a high level of threat, having to accept the situation, and holding themselves back from doing what they wanted to do, reported lower levels of mental health. Of the cognitive appraisal variables, primary appraisal had the strongest association; however, of all the variables in Step 3 of the equation, the work environment stressors continue to be the most closely related to mental health .

Of the eight coping strategies, only escape-avoidance coping and positive reappraisal showed a significant association with mental health when first entered into the regression equation; however, in addition to escape-avoidance coping and positive reappraisal, self-control (i.e., regulating one's own feelings and actions) made a significant positive contribution in predicting mental

TABLE 5.10

MULTIPLE REGRESSION OF HOW HEALTHY MENTALLY ON JOB STATUS, JOB STRESSORS, APPRAISAL, COPING, SOCIAL SUPPORT, DEPENDENT CHILDREN, NURSING EXPERIENCE, BUMPING, AND LAYOFF EXPERIENCE

Variables	r	Step 1 b	SE	Beta	Sig	Step 2 b	SE	Beta	Sig	Step 3 b	SE	Beta	Sig
Job Status													
Potentially Unemployed	-.083	.023	.069	.031	.737	.061	.064	.080	.354	.059	.063	.078	.345
Potentially Recall	-.144**	-.100	.067	-.135	.137	-.093	.062	-.126	.137	-.101	.061	-.137	.096
Potentially Displaced	-.067	-.037	.048	-.052	.443	-.003	.045	-.005	.938	-.017	.044	-.024	.705
Nurse Survivor	.115*	.042	.062	.054	.505	.004	.059	.005	.951	-.032	.058	-.041	.584
Job Stressors													
Job Security	-.329**					-.066	.026	-.187	**.012**	-.048	.026	-.135	.067
Work Environment	-.358**					-.136	.037	-.263	**.000**	-.119	.036	-.230	**.001**
Primary Appraisal													
Threat	-.266**									-.266	.109	-.154	**.016**
Secondary Appraisal													
Able to Deal with the Situation	.165**									.045	.054	.052	.408
Have to Accept the Situation	-.135*									-.132	.056	-.143	**.020**
Need More Information	.091									.076	.065	.073	.238
Have to Hold Back	-.197**									-.115	.055	-.129	**.039**
Coping													
Accept Responsibility	-.067												
Confrontive Coping	-.208**												
Distancing	.063												
Escape Avoidance	-.331**												
Planful Problem Solving	-.001												
Positive Reappraisal	.182**												
Self Control	-.037												
Seeking Social Support	-.056												
Social Support	.242**												
Controls													
Number of Dependent Children	.142*												
Years of Nursing Experience	.088												
Previous Layoff Experience	-.228**												
Number of Times Bumped	-.142*												
N=226	*p<.05 **p<.01	R^2=.027				R^2=.168				R^2=.238			

TABLE 5.10 (cont.)

MULTIPLE REGRESSION OF HOW HEALTHY MENTALLY ON JOB STATUS, JOB STRESSORS, APPRAISAL, COPING, SOCIAL SUPPORT, DEPENDENT CHILDREN, NURSING EXPERIENCE, BUMPING, AND LAYOFF EXPERIENCE

Variables	Step 4 b	SE	Beta	Sig	Step 5 b	SE	Beta	Sig	Step 6 b	SE	Beta	Sig
Job Status												
Potentially Unemployed	.045	.061	.059	.468	.047	.060	.062	.414	.049	.060	.065	.416
Potentially Recall	-.073	.060	-.099	.225	-.067	.059	-.091	.255	-.061	.060	-.083	.310
Potentially Displaced	-.042	.043	-.059	.336	-.048	.042	-.068	.260	-.060	.044	-.085	.175
Nurse Survivor	-.016	.056	-.020	.779	-.013	.055	-.017	.814	-.041	.058	-.053	.483
Job Stressors												
Job Security	-.025	.026	-.072	.333	-.039	.026	-.111	.135	-.032	.026	-.092	.217
Work Environment	-.092	.035	-.178	**.010**	-.083	.035	-.161	**.018**	-.074	.036	-.142	**.039**
Primary Appraisal												
Threat	-.186	.110	-.108	.093	-.173	.108	-.101	.110	-.203	.109	-.118	.063
Secondary Appraisal												
Able to Deal with the Situation	.041	.055	.047	.457	.017	.054	.019	.756	.024	.055	.027	.667
Have to Accept the Situation	-.131	.055	-.142	**.018**	-.119	.054	-.129	**.030**	-.120	.055	-.130	**.031**
Need More Information	.061	.063	.058	.339	.035	.063	.034	.576	.030	.064	.029	.638
Have to Hold Back	-.067	.054	-.076	.217	-.056	.053	-.062	.300	-.052	.053	-.058	.330
Coping												
Accept Responsibility	.036	.167	.014	.832	.057	.164	.023	.729	.020	.164	.008	.903
Confrontive Coping	-.294	.255	-.081	.252	-.256	.251	-.071	.308	-.185	.252	-.051	.463
Distancing	.241	.232	.069	.300	.200	.228	.057	.381	.172	.230	.049	.455
Escape Avoidance	-1.12	.342	-.255	**.001**	-1.12	.336	-.256	**.001**	-1.08	.339	-.246	**.002**
Planful Problem Solving	-.435	.295	-.139	.142	-.355	.291	-.113	.224	-.276	.292	-.088	.346
Positive Reappraisal	.747	.234	.284	**.002**	.638	.232	.242	**.007**	.611	.231	.232	**.009**
Self Control	.361	.232	.110	.121	.436	.229	.133	.058	.498	.230	.152	**.031**
Seeking Social Support	-.008	.184	-.003	.967	-.081	.182	-.036	.658	-.138	.183	-.057	.453
Social Support					.060	.020	.187	**.003**	.061	.020	.189	**.003**
Controls												
Number of Dependent Children									.082	.083	.062	.323
Years of Nursing Experience									.003	.012	.018	.779
Previous Layoff Experience									-.553	.241	-.141	**.023**
Number of Times Bumped									.018	.106	.011	.867
N=226	R^2=.327				R^2=.355				R^2=.376			

health in the final equation. These results indicate that nurses reporting a high usage of escape-avoidance coping, also reported a lower level of mental health while nurses reporting high usage of positive reappraisal and self-control reported higher levels of mental health. It is also interesting to note that both escape-avoidance coping and positive reappraisal provide relatively similar strengths of association when controlling for all other variables in the final equation.

The effect of social support on mental health indicates that nurses reporting a higher level of social support, reported a higher level of mental health than those nurses reporting lower levels of social support. This finding also parallels with the previous physical health regression analyses.

Of the four control variables, the only significant association was that of prior layoff. Nurses that have been previously laid off from either the Royal Alexandra or Charles Camsell hospitals reported a lower level of mental health than those nurses who have never been laid off before from either hospital.

In sum, 37.6% of the variation in how mentally healthy nurses reported themselves to be can be accounted for in the regression by seven variables: the work environment stressors, secondary appraisal of having to accept the situation, escape-avoidance coping, positive reappraisal, self-control, social support, and prior lay-off. Of these associations, escape-avoidance coping and positive reappraisal were the most closely associated with mental health (beta= -.246 and .232, respectively).

Multiple Regression of the CESD

The second measure of mental health was the 20-item CESD scale. In the first of six hierarchical regression equations, the association between depression and job status was explored. An examination of the regression

TABLE 5.11

MULTIPLE REGRESSION OF THE CESD SCALE ON JOB STATUS, JOB STRESSORS, APPRAISAL, COPING, SOCIAL SUPPORT, DEPENDENT CHILDREN, NURSING EXPERIENCE, BUMPING, AND LAYOFF EXPERIENCE

Variables	r	Step 1 b	SE	Beta	Sig	Step 2 b	SE	Beta	Sig	Step 3 b	SE	Beta	Sig
Job Status													
Potentially Unemployed	-.235**	-.051	.026	-.174	**.052**	-.035	.024	-.119	.146	-.034	.022	-.117	.123
Potentially Recall	-.186**	-.005	.025	-.019	.832	-.006	.023	-.002	.978	-.007	.021	-.026	.729
Potentially Displaced	-.088	-.020	.018	-.075	.266	-.007	.017	-.026	.673	-.017	.016	-.061	.290
Nurse Survivor	.210**	.030	.023	.101	.201	.012	.022	.040	.587	-.001	.020	-.003	.960
Job Stressors													
Job Security	-.414**					-.035	.010	-.260	**.000**	-.023	.009	-.171	**.013**
Work Environment	-.374**					-.043	.014	-.218	**.002**	-.032	.013	-.162	**.013**
Primary Appraisal													
Threat	-.414**									-.190	.019	-.287	**.000**
Secondary Appraisal													
Able to Deal with the Situation	.195**									.011	.019	.033	.566
Have to Accept the Situation	-.093									-.030	.020	-.085	.129
Need More Information	.115*									.047	.023	.115	**.042**
Have to Hold Back	-.256**									-.060	.019	-.174	**.002**
Coping													
Accept Responsibility	-.128*												
Confrontive Coping	-.178**												
Distancing	.061												
Escape Avoidance	-.416**												
Planful Problem Solving	-.020												
Positive Reappraisal	.190**												
Self Control	-.158**												
Seeking Social Support	-.064												
Social Support	.233**												
Controls													
Number of Dependent Children	.078												
Years of Nursing Experience	.064												
Previous Layoff Experience	-.129*												
Number of Times Bumped	-.138*												
N=227	*p<.05 **p<.01	R^2=.072				R^2=.228				R^2=.359			

TABLE 5.11 (cont.)

MULTIPLE REGRESSION OF THE CESD SCALE ON JOB STATUS, JOB STRESSORS, APPRAISAL, COPING, SOCIAL SUPPORT, DEPENDENT CHILDREN, NURSING EXPERIENCE, BUMPING, AND LAYOFF EXPERIENCE

Variables	Step 4 b	SE	Beta	Sig	Step 5 b	SE	Beta	Sig	Step 6 b	SE	Beta	Sig
Job Status												
Potentially Unemployed	-.039	.021	-.134	.067	-.038	.021	-.132	.068	-.040	.021	-.137	.061
Potentially Recall	.003	.021	.012	.868	.005	.021	.019	.796	.004	.021	.013	.857
Potentially Displaced	-.026	.015	-.096	.085	-.028	.015	-.104	.059	-.027	.015	-.099	.082
Nurse Survivor	.004	.019	.013	.839	.005	.019	.016	.798	.012	.021	.039	.573
Job Stressors												
Job Security	-.015	.009	-.111	.101	-.020	.009	-.145	**.031**	-.021	.009	-.152	**.027**
Work Environment	-.023	.012	-.116	.061	-.020	.012	-.102	.096	-.020	.013	-.102	.107
Primary Appraisal												
Threat	-.144	.038	-.218	**.000**	-.140	.038	-.212	**.000**	-.142	.038	-.214	**.000**
Secondary Appraisal												
Able to Deal with the Situation	.003	.019	.009	.875	-.005	.019	-.015	.794	-.005	.019	-.015	.793
Have to Accept the Situation	-.027	.019	-.077	.154	-.023	.019	-.066	.216	-.021	.019	-.058	.292
Need More Information	.035	.022	.085	.120	.026	.022	.063	.243	.032	.023	.078	.166
Have to Hold Back	-.039	.019	-.114	**.038**	-.034	.018	-.100	.063	-.034	.019	-.099	.069
Coping												
Accept Responsibility	-.045	.058	-.046	.435	-.036	.057	-.037	.528	-.034	.057	-.035	.551
Confrontive Coping	.008	.088	.006	.928	.018	.087	.013	.836	.010	.088	.007	.910
Distancing	.160	.081	.119	**.048**	.145	.079	.108	.069	.154	.081	.115	.059
Escape Avoidance	-.471	.119	-.282	**.000**	-.475	.116	-.285	**.000**	-.477	.119	-.259	**.000**
Planful Problem Solving	-.127	.013	-.106	.216	-.102	.101	-.084	.315	-.010	.103	-.083	.333
Positive Reappraisal	.297	.081	.292	**.000**	.262	.081	.257	**.001**	.264	.081	.165	**.004**
Self Control	.042	.081	.033	.606	.066	.080	.053	.406	.071	.081	.056	.382
Seeking Social Support	-.019	.064	.020	.770	-.043	.063	-.047	.496	-.040	.065	-.043	.535
Social Support					.020	.007	.163	**.004**	.020	.007	.165	**.004**
Controls												
Number of Dependent Children									.006	.029	.012	.837
Years of Nursing Experience									-.003	.004	-.004	.942
Previous Layoff Experience									.010	.085	.007	.905
Number of Times Bumped									.041	.037	.066	.277
N=227	R^2=.451				R^2=.472				R^2=.476			

analysis in Table 5.11 shows that when job status was entered alone, the possibility of becoming potentially unemployed contributed to a higher number and frequency of occurrence of self-reported symptoms of depression, however, this effect disappeared when controlling for other variables. Consistent with the previous mental health analysis, job status was not a significant predictor of depression.

A substantial change in R^2 appears when the job stressors were entered into the regression equation, increasing the explained variance in depression scores by almost 16%. Among the two job stressor variables, job security was the only stressor that had a significant relationship with depressed mood after controlling for all other predictor and control variables in the equation. This indicates that as the stressfulness of job uncertainty rises, so does the number and frequency of occurrence of depressive symptoms.

Of the five appraisal variables, three show a significant association with depression when initially entered in the equation: primary/threat appraisal, secondary appraisal of requiring more information before they could act, and secondary appraisal of having to hold back from doing what they wanted to do. However, in the final regression analysis, primary appraisal was the only appraisal variable that was significantly related to depression, suggesting that the more threatening the situation was perceived to be, the higher the level of depression.

When controlling for all other variables, two of the eight coping strategies were significantly related to depression in the regression analysis: escape-avoidance coping and positive reappraisal. Specifically, nurses reporting high usage of positive reappraisal reported fewer symptoms of depression while nurses using escape-avoidance coping reported more. These results are comparable to the results in the previous single-item "How mentally healthy?"

analysis which showed that escape-avoidance coping emerged as the variable most closely related to mental illness.

Consistent with the three previous regression results, social support was shown to have a significant relationship with depression. Those nurses reporting more supports and more satisfaction with support, reported less depression than nurses who reported fewer supports and less satisfaction with support.

None of the four control variables emerged as significant and added less than 1% to the R^2. The completed regression model has been able to explain 47.6% of the variance in depression. Escape-avoidance coping had the strongest association with depressed mood, nevertheless, primary/threat appraisal also had a substantial association with depression. Additional findings from this study indicate that the variance in depression is also related to job security stressors, positive reappraisal, and social support.

Summary

The bivariate correlations reveal that appraisal of the situation as threatening, as requiring acceptance, and holding back from what they really wanted to do was negatively correlated with self-reported mental health and the number and frequency of occurrence of symptoms of depression. Appraising the situation as changeable (i.e., being able to deal with the situation) and having social support were positively correlated with both measures of mental health.

A consistent finding in the regression analyses of mental health was that escape-avoidance coping was more closely related to mental health than any of the remaining predictor and control variables. Another consistent finding was that social support and positive reappraisal had a positive significant

relationship with mental health, independent of all other predictor variables. In addition to these variables, work environment stressors, secondary appraisal of having to accept the situation, self-control, and previous layoff were related to "how mentally healthy" nurses reported themselves to be, and job security stressors and primary/threat appraisal were associated with depression.

COPING

Is there a relationship between appraisal of the situation and utilization of coping strategies by nurses? Do nurses suffering from potential job loss use different coping strategies than the nurse survivor? These questions will be used to guide the following analysis.

Table 5.12 shows the mean and standard deviation for each of the eight coping subscales. These results indicate that nurses frequently seek social support as a coping strategy in dealing with impending job loss. The strategy used the least was accepting responsibility, in which the person acknowledges one's own role in the problem with a commitment of trying to put things right. In order to determine the relationship between appraisal and coping, bivariate regression followed by multivariate regression analysis was employed.

The Effect of Cognitive Appraisal on Coping

The bivariate correlations of appraisal and coping are presented in Table 5.12. This table reveals that primary appraisal was positively correlated with confrontive coping (using aggressive efforts to alter the situation), escape-avoidance coping (employing wishful thinking and behavioral efforts to escape or avoid the situation), and self-control (regulating their own feelings and actions). That is, when threat was high, nurses reported a higher usage of confrontive coping, escape-avoidance coping, and self-control. When the

situation was perceived as one in which they could deal with or do something about, nurses reported lower usage of escape-avoidance coping and self-control, and a higher usage of planful problem solving and positive reappraisal (creating positive meaning by focusing on personal growth). When the situation must be accepted, nurses reported using more self-control and less confrontive coping and accepting responsibility. The more nurses had to hold themselves back from doing what they wanted to do, the more they reported using escape-avoidance coping and self-control.

Since significant relationships between the predictors (cognitive appraisal) and the outcomes (coping strategies) were found, it was felt that multiple regression should be employed. In the multiple regression analysis, each of the eight coping subscales were individually regressed on the cognitive appraisal variables to determine the relationship between cognitive appraisal and coping. The results are presented in Table 5.12.

Primary appraisal was significantly associated with confrontive coping, escape-avoidance coping, and self-control. These results indicate that the higher the stakes (i.e., the more threatening the appraisal), the higher the usage of confrontive coping, escape-avoidance coping, and self-control. A significant relationship was also revealed between secondary appraisal and certain coping strategies. Specifically, perceiving the situation as a challenge (ie., as a situation that could be dealt with) was related to greater use of planful problem solving and positive reappraisal, and less use of self-control. Having to accept the situation was associated with the use of self-control. The more an individual was likely to hold back from doing what they wanted to do, the higher the usage of escape-avoidance coping. There were no significant relationships between secondary appraisal of requiring more information before one could act and coping strategies. The R^2 for the relationship between

TABLE 5.12

MULTIPLE REGRESSION OF COPING ON PRIMARY AND SECONDARY APPRAISAL

Appraisal	r	b	Beta	Sig.	R^2	N
			Accepting Responsibility (Mean=1.426, SD=.655)			
Primary	.088	.054	.081	.211		
Secondary						
Deal with	.035	.021	.061	.344		
Accept	-.119*	-.040	-.114	.074		
Need info	.039	.004	.010	.868		
Hold back	.098	.031	.088	.174		
Model					.031	249
			Confrontive Coping (Mean=1.753, SD=.467)			
Primary	.139**	.073	.147	.022*		
Secondary						
Deal with	.078	.028	.113	.077		
Accept	-.106*	-.028	-.107	.090		
Need info	.011	-.005	-.018	.783		
Hold back	.175	.013	.050	.431		
Model					.044	251
			Distancing (Mean=2.055, SD=.492)			
Primary	.092	.045	.086	.180		
Secondary						
Deal with	-.024	-.004	-.016	.802		
Accept	.057	.020	.074	.243		
Need info	.093	.033	.101	.116		
Hold back	.050	.008	.017	.778		
Model					.023	252
			Escape-Avoidance (Mean=1.655, SD=.390)			
Primary	.360**	.130	.314	.000**		
Secondary						
Deal with	-.164**	-.017	-.083	.160		
Accept	-.009	-1.97	-9.02	.988		
Need info	-.031	-.012	-.048	.408		
Hold back	.270**	.047	.217	.000**		
Model					.187	251
			Planful Problem Solving (Mean=2.129, SD=.528)			
Primary	.070	.048	.088	.171		
Secondary						
Deal with	.142**	.044	.157	.015*		
Accept	-.026	-.005	-.019	.766		
Need info	.085	.023	.067	.295		
Hold Back	.041	.012	.041	.520		
Model					.036	252

TABLE 5.12 (Cont.)

MULTIPLE REGRESSION OF COPING ON PRIMARY AND SECONDARY APPRAISAL

Appraisal	r	b	Beta	Sig.	R^2	N
			Positive Reappraisal (Mean=2.107, SD=.629)			
Primary	-.056	-.021	-.032	.618		
Secondary						
Deal with	.142**	.043	.131	.044*		
Accept	-.011	-.003	-.009	.887		
Need info	.068	.025	.060	.352		
Hold back	-.036	-.007	-.022	.737		
Model					.025	251
			Self-Control (Mean=2.096, SD=.503)			
Primary	.269**	.132	.245	.000**		
Secondary						
Deal with	-.170**	-.034	-.125	.042*		
Accept	.179**	.052	.185	.002**		
Need info	-.074	-.017	-.050	.411		
Hold back	.106*	.017	.059	.330		
Model					.130	251
			Seeking Social Support (Mean=2.479, SD=.683)			
Primary	.054	.044	.061	.347		
Secondary						
Deal with	.066	.028	.077	.236		
Accept	.005	.004	.019	.872		
Need info	.047	.018	.039	.543		
Hold back	.039	.014	.024	.575		
Model					.012	252

Note: $p<.05$* $p<.01$**

cognitive appraisal and each coping strategy ranged from 1.1% (seeking social support) to 18.7% (escape-avoidance).

These results have shown that the higher the threat, the greater the use of confrontive coping, escape-avoidance coping, and self-control. The more challenging and the more manageable the situation was perceived to be, the greater use of planful problem solving and positive reappraisal, and the less use of self-control. The more constraining the situation (i.e., the more one had to hold back), the greater the use of escape-avoidance coping. The more the situation had to be accepted, the greater the use of self-control.

The Effect of Job Status on Coping

Are there significant differences in the usage of coping strategies for the different job status groups? In order to answer this question, bivariate correlation and multivariate regression analysis were employed. Each correlation and regression equation will be presented by each coping subscale.

The results reveal that the likelihood of job loss resulting in unemployment was positively correlated with only one coping strategy, escape-avoidance. A positive correlation was also found between the likelihood of job loss resulting in recall status and the use of escape-avoidance coping and seeking social support. The likelihood of being bumped or laid-off resulting in displacement was positively correlated with planful problem solving and positive reappraisal. The nurse survivor was negatively correlated with escape-avoidance coping, planful problem solving, and seeking social support.

Following the bivariate correlations, multivariate analysis was performed. The regression analysis revealed that a significant relationship was found between job status and positive reappraisal and planful problem solving. What the analysis shows is that the likelihood of job loss leading to recall and

TABLE 5.13

MULTIPLE REGRESSION OF COPING ON JOB STATUS

Job Status	r	b	Beta	Sig.	R^2	N
			Accepting Responsibility			
Unemployed	.011	.011	.035	.679		
Recall	-.016	-.016	-.054	.523		
Displaced	.077	.022	.018	.228		
Survivor	-.023	-.006	-.020	.794		
Model					.008	255
			Confrontive Coping			
Unemployed	.042	.008	.038	.656		
Recall	.022	-.005	-.022	.798		
Displaced	.033	.006	.029	.644		
Survivor	-.048	-.008	-.035	.644		
Model					.004	258
			Distancing			
Unemployed	.042	-.005	-.022	.792		
Recall	.084	.019	.088	.297		
Displaced	.032	.005	.022	.725		
Survivor	-.054	-.003	-.017	.828		
Model					.008	259
			Escape Avoidance			
Unemployed	.132*	.004	.024	.769		
Recall	.168**	.020	.112	.179		
Displaced	.062	.007	.042	.506		
Survivor	-.150**	-.014	-.074	.326		
Model					.036	258
			Planful Problem Solving			
Unemployed	.094	.039	.160	.053*		
Recall	-.028	-.049	-.206	.013**		
Displaced	.140**	.031	.135	.030*		
Survivor	-.126*	-.032	-.130	.083		
Model					.056	259
			Positive Reappraisal			
Unemployed	.004	.013	.046	.578		
Recall	-.063	-.048	-.171	.040*		
Displaced	.157**	.041	.149	.018*		
Survivor	-.091	-.039	-.131	.081		
Model					.046	258

TABLE 5.13 (Cont.)

MULTIPLE REGRESSION OF COPING ON JOB STATUS

Job Status	r	b	Beta	Sig.	R^2	N
			Self-Control			
Unemployed	.069	.022	.095	.258		
Recall	-.004	-.024	-.106	.210		
Displaced	.001	-.008	-.004	.954		
Survivor	-.075	-.020	-.081	.285		
Model					.013	258
			Seeking Social Support			
Unemployed	.071	-.003	-.009	.914		
Recall	.114*	.028	.089	.287		
Displaced	.098	.025	.083	.188		
Survivor	-.101*	-.015	-.047	.535		
Model					.022	259

Note: $p<.05$* $p<.01$**

job displacement were significantly associated with positive reappraisal. This means that nurses perceiving potential job loss resulting in recall, reported using less positive reappraisal as a coping strategy than nurses who didn't perceive the likelihood of job loss leading to recall. The results also indicate that the more a nurse perceived the likelihood of job loss resulting in job displacement, the greater the usage of positive reappraisal. The job status groups account for 4.6% of the variance in the usage of positive reappraisal as a coping strategy.

Planful problem solving was the second coping strategy that was significantly related to job status. The partial regression coefficients for the potentially unemployed and displaced nurses indicate that the more likely a nurse was to be laid-off leading to unemployment or displacement, the higher the self-reported use of planful problem solving. The likelihood of recall had a negative association with planful problem solving. The more likely a nurse was to be laid off resulting in recall, the less likely planful problem solving was employed. Job status accounted for 5.6% of variance in the use of planful problem solving.

Summary

In summary, the above has demonstrated that cognitive appraisal and job status were found to have several significant associations with coping strategies utilized by nurses to enable them to deal with the announcement of forthcoming layoffs. Specifically, the findings revealed that with respect to primary appraisal, the higher the stakes (i.e., the higher the threat), the higher the usage of confrontive coping, escape-avoidance coping, and self-control. Secondary appraisal was also significantly related to coping. The more the situation was appraised as one that could be changed or dealt with, the more

nurses reported using planful problem solving and positive reappraisal. If the situation was appraised as requiring acceptance, self-control was used. And if the situation was appraised as having to hold back from doing what they wanted to do, coping strategies such as escape-avoidance and self-control were used.

Job status was also significantly related to the utilization of different coping strategies, specifically employing strategies such as planful problem solving and positive reappraisal. Nurses with the potential to be laid-off leading to unemployment reported using planful problem solving to deal with impending layoffs. In contrast, the potential recall nurses were less likely to use planful problem solving and positive reappraisal. And finally, the nurses anticipating displacement reported using both planful problem solving and positive reappraisal.

CHAPTER SUMMARY

While causality cannot be determined from a cross-sectional study, nevertheless some interesting patterns emerged. The variable most closely related to perceived level of stress was the stressfulness of various aspects of the working environment, namely job insecurity and stressors arising from the work environment itself. The use of distancing as a coping strategy and the frequency of involuntary job change were also significantly related to stress.

Coping strategies such as escape-avoidance coping and positive reappraisal were the most closely related to self-reported physical and mental health. More specifically, positive reappraisal was positively associated with physical health and escape-avoidance coping was negatively associated with mental health. The beneficial influence of social support was also evident for each of the four health regressions.

CHAPTER SIX
DISCUSSION

INTRODUCTION

This study was conducted as a step toward understanding the phenomenon of job stress as it is experienced by nurses working in the midst of health care restructuring in Alberta. In this chapter, I attempt to make some sense of the research findings presented in Chapter Five in relation to the research questions and hypotheses put forth in Chapter Three. This study addressed two general issues concerning stress in the workplace. The first issue was whether job status and job stressors make independent contributions to the prediction of perceived stress, physical health, and mental health. The second issue addressed in this study was whether psychosocial resources such as cognitive appraisal, coping, and social support influence the perception of stress and self-reported health.

The chapter is divided into subsections based on the effects of the predictor variables. The chapter begins with a look at job uncertainty and how it is related to perceived stress, health, and coping. The chapter proceeds by exploring the relationship between job stressors and perceived stress and health outcomes. A look at cognitive appraisal, coping, and social support follows respectively. The chapter concludes with a discussion of the implications of this research for nursing.

JOB UNCERTAINTY

Since 1993, Alberta has been restructuring health care in response to the provincial government's goal of reducing the provincial deficit. As a result, many nurses have become expendable, unable to elude the chopping block.

Nurses have been undergoing three years of job loss, and the future holds even more uncertainty as the Capital Health Authority announces its annual budget plan and the continuation of even more layoffs.

Job Uncertainty and Stress

The literature presented in Chapter Two identified a relative paucity of theoretically based research in the area of job uncertainty and job stress, especially germane to nursing. Because so little is known about the differences in perceived job stress among nurses experiencing **potential** job loss, this study goes beyond previous job stress research to compare nurses who perceive the likelihood of job loss leading to unemployment, recall, or displacement and the nurse survivor in terms of perceived job stress.

The findings from this study suggest that job stress in nursing is a real concern. Generally, nurses working in the midst of changes to the health care system are stressed. When we look at job status in terms of how much stress nurses reported, we find that nurses who perceived the likelihood of job loss resulting in unemployment reported the highest level of stress in comparison with the nurse survivors who reported the least amount of stress. However, multiple regression analysis supports findings in the literature that indicate nursing is a stressful profession, regardless of whether nurses feel secure or insecure with their employment status. These findings are consistent with Wolfgang's (1988) finding that nurses experience the highest degree of stress when compared to doctors and pharmacists, and Foxall et al's. (1990) findings that intensive care, hospice, and medical surgical nurses were similar with respect to overall frequency of job stress. However, the issue of job uncertainty and stress requires further explanation and investigation in future job stress studies.

Job Uncertainty and Health

Two facts emerged as significant when health was regressed on job status when controlling for job stressors, cognitive appraisal, coping, social support, number of dependent children, years of nursing experience, previous experience with layoff, and number of times previously bumped. The first fact that emerged as significant was that the possibility of job loss leading to job displacement (involuntary job change) was negatively related to the 7-item physical health scale. In other words, the higher the likelihood of job displacement, the more self-reported frequency and symptoms of physical health problems. Second, in analyzing the effect of job status on physical health, a surprising finding was uncovered. The more likely a nurse was to be laid off leading to unemployment, the higher the level of subjective physical health when asked "How physically healthy are you?"

Although there is a paucity in the literature on the effects of involuntary job change, other studies have shown that job uncertainty has potentiated physical symptoms such as dizziness, stomach cramps, diarrhea, and increased blood pressure (Rosellini, 1981). These findings are consistent with the findings from this study which demonstrated marked negative associations with physical health symptoms during the anticipatory job displacement phase.

What is surprising though, is the positive relationship between uncertainty of employment and physical health. However, because these results are inconsistent with previous findings that document that anticipated job loss is associated with lowered physical health (Kasl, Gore, & Cobb, 1975; Rosellini, 1981; Arnetz et al., 1991), I am only able to venture a guess as to why this unexpected finding may have occurred. In this study, physical health was operationalized using two separate definitions: one operationalization measured symptoms of physical health problems and the second

operationalization asked respondents "How healthy physically have they felt in the past four months?" I will speculate that this unexpected finding may be a result of the weak operationalization of specifically asking nurses how healthy they have felt in the past four months. This sort of question asks nurses to think back four months and assess how healthy they have felt over a four month period. If they felt good, for example, in the last few days or even weeks, they may evaluate their health as very good. The finding related to this weaker operationalization are inconsistent with the finding that potential job loss resulting in unemployment had no significant effect on the stronger measurement using the seven-item health symptom scale scores.

Another explanation could be that some of the physical health effects may be confounded with age effects. Perhaps the potentially unemployed nurses are younger than the nurses situated in the other three job status groups, and younger nurses indeed may have better health. In order to justify this plausible explanation, the researcher compared the mean age of nurses (only the "very likely" and "very secure" respondents) in each of the four job status groups. It was found that the mean age of the potentially unemployed nurses was 35 years of age, 36 years for the recall nurses, 40 years of age for the displaced nurses, and 41 years for the nurse survivors. Although there does appear to be a small difference in the age of nurses for each job status group, the difference was not significant at the .05 level of significance. A final explanation is that this unusual finding could be due to chance circumstances at the .05 level of significance and therefore this study needs to be replicated in order to evaluate the importance of this result.

These findings reveal that there may significant differences in self-reported health for distinct classifications of job uncertainty. In short, it appears that job status was related to how physically healthy one felt,

especially if the likelihood of unemployment and job displacement were high. Studies have examined the effect of anticipated involuntary job loss, but the effect of anticipated involuntary job change has been largely overlooked in studies examining job uncertainty. These different classes of job uncertainty need to be explored in future job stress studies.

The Influence of Job Uncertainty on the Use of Coping Strategies

Little is known about the specific coping strategies individuals use in dealing with job loss, whether it be threatened, impending, or implemented. Lazarus and Folkman (1984) assert that event uncertainty has a paralyzing effect on anticipatory coping strategies. The influence of job status (unemployed, recall, displaced, and survivor) on coping strategies is relatively unexplored. As a result, coping strategies were explored to examine if there are differences between job status groups.

One of the research questions posed in Chapter Two asks, "What coping strategies are utilized by nurses to deal with impending layoffs?" The results from the regression analysis, using the Ways of Coping Checklist (Lazarus & Folkman, 1984), demonstrated that there were few differences in the strategies nurses adopted to deal with the impending job loss situation. Although there were some significant differences in the use of planful problem solving and positive reappraisal, nevertheless, accepting responsibility, confrontive coping, distancing, escape-avoidance coping, self-control, and seeking social support were not employed in significantly different manners.

The results presented in Chapter Five revealed that nurses likely to become unemployed or displaced, reported a greater usage of planful problem solving. This suggests that in order to deal with the uncertainty of job loss, these nurses were analyzing the situation (perhaps, if they anticipate

unemployment, perusing the classified ads in the newspaper or if they are displaced, checking the seniority list to see who and where they can bump), looking ahead, and making plans for their future. The results also revealed that nurses likely to be displaced reported using more positive reappraisal in dealing with potential job loss. In other words, the more likely a nurse was to be bumped from her/his staff nurse position into another staff nurse position (hence job displacement) the more likely she/he was to focus on personal growth, find something positive from the situation, rediscover what is important in life, or be inspired to do something creative.

Very little is known about the coping strategies employed by individuals under various conditions of uncertainty, especially in situations in which the individual can to nothing directly to change the objective event. Although there is little research in the area of coping with impending job loss, when perusing the anticipatory coping and uncertainty literature, it was found that while anticipating a threatening event, a person's thoughts about the uncertainty of the event influences how they cope with it (Monat, Averill, & Lazarus, 1972; Monat, 1976).

Monat et al. (1972) examined the effects of both temporal uncertainty (subjects knew the event would occur but not when) and event uncertainty (subjects did not know whether the event would occur) on anticipatory stress responses and cognitive coping responses. They found that when dealing with temporal uncertainty (of being delivered electric shock), individuals' thoughts centered around the event itself (problem-focused coping) in the early stages of anticipation, however, as time progressed, individuals reported significantly more time spent of avoidant-like thoughts (emotion-focused coping). The results from this study support these published findings; however, they must be interpreted with caution due to the persistent uncertainty (both temporal and

event uncertainty) of job loss since the initial cuts to health care in 1993.

In this study, potentially unemployed nurses and potentially displaced nurses were found to use more problem-focused coping than emotion-focused coping; however, it is impossible to determine how soon after the announcement of impending layoffs nurses employed these coping strategies, whether it was in the early or late stages of anticipation. One explanation for this finding could be that nurses are confronted with a variety of anticipated situations throughout their work day that call for them to make difficult decisions. These decisions are more than likely based on a lengthy evaluation of alternative solutions and the costs and benefits of their decisions. Therefore, one can assume that nurses use extensive problem-solving strategies throughout their day to deal with difficult or ambivalent situations in addition to their daily routine. In essence, they may use these same problem-solving strategies when dealing with the possibility of job loss.

A negative association was revealed between recall status and the use of planful problem solving and positive reappraisal as a coping strategy. That is, potentially becoming unemployed resulting in recall status was related to lower usage of planful problem solving and positive reappraisal. As shown, job uncertainty does appear to play a small role in determining the type of coping strategies nurses employ to deal with either potential job loss or job displacement.

JOB STRESSORS

Given that an examination of the effects of job status were not sufficient to unravel the whole story behind job stress, other factors must be accounting for the differences in stress and health. Other factors that may account for these differences could include job stressors. Brief and George (1995) contend

that research must focus on identifying those conditions of employment that are likely to adversely affect the psychophysiological well-being of persons exposed to them.

Both the quantitative and qualitative (the use of open-ended questions) findings of this study suggest that the most stressful situations experienced by nurses include those situations which deal with job security issues. Nurses reported that job uncertainty and an uncertain future in nursing were both highly stressful, and in fact ranked among the top two most stressful situations reported by nurses.

These findings are consistent with a study conducted by Jick (1985) with regard to budget cuts and the experience of stress in organizations. Jick contends that as organizations adapt to leaner times, employees have been subject to multiple sources of stress including the uncertainty and stability of their work lives in the face of constant change and decline, the fear of job loss, the burdens of doing more with less, the pressure to cut cost wherever possible, and the fear that job performance will be adversely affected. In short, it is a situation that is likely to contain many more demands and constraints than opportunities.

As a result of the analysis and findings in the previous chapter with regard to the rank-order of perceived stressfulness of the situation, I accept hypothesis 1(a): nurses will rank job insecurity, workload, and working with inexperienced nurses as major work-related stressors. When nurses ranked stressors, job loss was ranked as the most stressful, followed by the possibility of being replaced with nursing attendants, the inability to satisfy conflicting demands of other health care professionals, the lack of time and resources to provide emotional support to patients, and working with inexperienced nurses.

The only exception to the above hypothesis is that workload did not

rank in the top five stressful situations identified by nurses, however, when the sample was split by job status, workload was rated as fourth most stressful for the potentially unemployed and fifth for the recall and displaced nurses. It is surprising, however, that workload did not rank higher for the nurse survivor, as previously hypothesized for these nurses. Workload and working with inexperienced nurses were ranked as equally stressful and placed sixth out of 14 potentially stressful situations. In failing to accept the hypothesis that nurse survivors would rank workload as more stressful than other job stressors, a possible explanation needs to be addressed.

Ogus (1995) suggests that workload stress varies according to the type of unit nurses work on. Foxall, Zimmerman, Standley, and Bene-Captain (1990) compared the frequency and sources of nursing job stress perceived by intensive care unit (ICU), hospice, and medical-surgical (M-S) nurses. Analysis of variance revealed no significant differences among the three groups of nurses on the overall frequency of job stress, however, there were significant findings in relation to the sources of stress. Hospice and ICU nurses perceived more stress than M-S nurses related to death and dying, whereas work overload and staffing were the most stressful for M-S nurses. Foxall et al. concluded that although the frequency of stress is similar for all nurses, the sources of stress are significantly different. Therefore, based on these study findings, one can postulate that stressfulness of the workload may depend on where the nurse survivor is employed.

How are job stressors related to the perception of stress and self-reported health? When stress was regressed on the job security and work environment stressors, both were shown to have strong positive associations with stress. That is, the more stressful a situation was perceived to be, the higher the level of stress reported. When physical health was regressed on the job stressor

variables, stressors arising from the work environment were shown to be negatively related to health. That is, the more stressful the work environment, the lower self-reported physical health.

With regard to mental health, the stressfulness of the work environment was negatively associated with the single-item "How mentally healthy?" variable, and the stressfulness of job uncertainty was negatively associated with the CESD (i.e., lower mental health is synonymous with a higher level of depression). The negative correlation between mental health and the stressfulness of various aspects of the working environment is a common finding (McRanie, Lambert, & Lambert, 1987; McLaughlin & Erdman, 1990; Skipper, Jung, & Coffey, 1990; Van Servellen & Leake, 1993). These findings are also consistent with the findings of Frone, Russell, and Cooper (1995) that job stressors were positively related to psychological distress, even after controlling for family stressors, work-family conflict, sociodemographic variables, and psychosocial resources.

A factor to emerge in the regression analysis was the high increment in R^2 when stress was regressed on job status and job stressors. The high R^2 increment of 31% suggests that job stressors (both the job security and work environment stressors) had a strong relationship with the level of perceived stress reported by acute care hospital nurses. These results are also comparable to the findings of Lowe and Northcott (1988) that job characteristics produced the most impressive change in R^2 when introduced in the regression analysis of depression, irritability, and psychophysiological symptoms of postal workers.

The findings from this study suggest that it is not only the stressfulness of the work environment such as workload, co-worker conflict, patient acuity, and job responsibilities that have an adverse association with physical and mental health, as previous studies have suggested. It is also apparent that the

stressfulness of job uncertainty may positively influence the feeling of perceived stress and the experience of depression.

THE ROLE OF COGNITIVE APPRAISAL

Lazarus and Folkman (1984) contend that people interpret stress arising from their job and their personal lives in different ways. Some individuals may ignore the event, others may find it threatening, and still others may find it challenging. It is suggested that cognitive appraisal operates as a psychological process that influences the level of stressfulness of an event and the individual's response to it. How people perceive and evaluate events becomes crucial for their mental and physical well-being.

The Influence of Cognitive Appraisal on Perceived Stress and Health

A hierarchical multiple regression analysis was employed in order to examine the extent to which the relationships between job status, job stressors, stress, physical health, and mental health could be accounted for by cognitive appraisal. The findings reported in the previous chapter illustrated that cognitive appraisal had no significant association with the perceived level of stress (one dimension of the global operationalization of stress) reported by nurses, however, was significantly associated with physical and mental health. It has been hypothesized that nurses who appraise the health care reform as threatening will report higher levels of perceived stress, lower physical health, and lower mental health.

Consistent with this prediction, those nurses appraising the situation as threatening reported experiencing lower levels of physical and mental health, that is, more symptoms and/or a higher frequency of occurrence of symptoms of physical and psychological problems, than nurses who did not appraise the

situation as threatening. These findings support existing cognitive appraisal research (Folkman et al., 1986) which suggests that stress reactions are related to the perception that a potential stressor exceeds or does not exceed the person's ability to cope with it. These findings are also consistent with the study conducted by Kobasa (1982) in that threat appraisals were more strongly associated with negative emotional reactions such as burnout than were challenge appraisals. Tomaka, Blascovich, Kelsey, and Leitten (1993) also examined stress, physiological, and behavioral effects of threat and challenge appraisals of upcoming coping tasks in three separate studies. Results showed consistently, across all three studies, that threat appraisals were related positively to the level of stress they experienced. The findings from the above studies suggests that threat appraisals are positively associated with stress and ill health.

With regard to challenge appraisals (using the operationalization of secondary appraisal in which the situation is amenable to change), no significant associations were found for physical health, however, significant negative associations were demonstrated for mental health if the situation was appraised as having to be accepted. If the health care reform was appraised as requiring that they hold themselves back from doing what they wanted, significant levels of poorer health and more symptoms of mental distress were reported. Although these results do not show significant associations between challenge appraisals and health, they do suggest that if the situation is not appraised as a challenge, lower levels of health pervade.

The Effect of Cognitive Appraisal on Coping

The primary purpose of the multiple regression analysis was to examine the association between cognitive appraisal and coping strategies. The relation

between primary appraisal of threat and coping was examined with eight multivariate analyses for each coping scale. Four of the eight regression equations were significant. When overall threat was high, nurses used more confrontive coping, escape-avoidance coping, and self-control and less positive reappraisal than when threat was low. In addition to the expected findings, there were also results that were not explicitly predicted. As predicted in hypothesis 2(b), nurses who appraised the health care reform as threatening incorporated the use of escape-avoidance coping. However, it was not predicted that they would also use confrontive coping and self-control. Because nurses did not significantly use distancing as a coping strategy, as predicted, a portion of the hypothesis must be rejected. Most of these findings were closely related to the findings of Folkman et al. (1986). Folkman et al. found that three strategies tended to be used more in high-stake conditions regardless of the stake involved: self-control, escape-avoidance coping, and seeking social support.

The relationship between secondary appraisal and coping strategies were also examined using eight regression equations. The pattern of coping in situations that nurses appraised as amenable to change were strikingly different from the strategies used in situations appraised as having to be accepted and having to hold themselves back. The results of the analyses revealed that nurses used more planful problem solving and positive reappraisal, and less escape-avoidance coping and self-control in situations they appraised as amenable to change, that is, as situations they were able to deal with. In situations that were appraised as having to be accepted, nurses used more self-control and less confrontive coping and accepting responsibility. And in situations that were appraised as requiring that they hold back from doing what they wanted to do, nurses reported using more escape-avoidance and self-

control. Folkman et al. (1986) also found similar findings when the situation was appraised as requiring them to hold back. They suggested that where the subject had to hold back, self-control was accompanied by escape-avoidance, which suggests that in these situations, self-control was used in an attempt to keep things from getting out of hand.

The remaining findings are also fairly consistent with the research conducted by Folkman et al (1986). They found that subjects accepted more responsibility and used more confrontive coping, planful problem solving, and positive reappraisal in encounters they appraised as responsive to change, and more distancing and escape-avoidance in encounters they appraised as having to accept. In encounters they appraised as requiring more information before they could act, they sought more social support and used more self-control and planful problem solving, and in encounters that subjects appraised as having to hold back from doing what they want to do, used more confrontive coping, self-control, and escape-avoidance.

The findings from this study and that of Folkman et al. (1986) suggest that coping is strongly related to cognitive appraisal. It is also apparent that the coping strategy used varies depending on how much is at stake and the options for coping.

COPING

Although no specific predictions were made about the relationship between coping and perceived stress and health, the literature suggests that coping acts as a mediator between the stressor and the stress response. Cronkite and Moos (1984) suggest that coping can both buffer and exacerbate health-illness depending on the coping strategies employed.

Through the use of multiple regression, the findings from this study

reveal that only distancing as a coping strategy was negatively associated with the perceived level of stress of nurses. Specifically, the more a nurse distanced herself/himself from the potential job loss/job change situation, the less stress they experienced.

When examining the effects of coping on the level of self-reported health it was found that the use of positive reappraisal acted to improve both physical and mental health whereas the use of escape-avoidance coping exacerbated symptoms of physical and mental health problems. These results support the findings of Arnetz et al. (1991) that coping style appears to be a major determinant of how people react to potential job loss. Their analysis revealed that stress (of anticipating job loss) and corresponding psychophysiological health problems were increased by emotion-focused coping and avoidance coping. Wolfgang (1995) also found that greater use of avoidance coping was associated with higher levels of stress and lower job satisfaction for nurses and pharmacists.

The data also revealed that planful problem solving magnified the frequency of physical symptoms. Although one would think that problem solving would enhance health, the adverse effect on health when using planful problem solving has been documented by Folkman (1984). The basic message that Folkman argues is that problem-focused coping (looking for a job) is not always optimal for health, unless a job is obtained.

I will use a similar line of reasoning for suggesting why planful problem solving is negatively correlated with physical health in nurses faced with the constant threat of job uncertainty. The data showed earlier that the displaced nurses reported significantly lower levels of physical health than other nurses. The data also revealed that the displaced nurses also used high levels of planful problem solving which has been shown to be negatively correlated with

physical health. For the displaced nurse, the use of problem solving may be employed to determine their seniority, the likelihood of being bumped, and their bumping options. If the displaced nurse finds out that he/she has no seniority, a high chance of being bumped, and few options as to where he/she can bump, then this increases the likelihood that this strategy will have a negative association with health. It must be emphasized that this is only a preliminary explanation as to why planful problem solving was negatively related to physical health. Such unexpected findings need to be replicated in future studies.

SOCIAL SUPPORT

One primary moderator of occupational stress that has been identified in the general literature is social support. Social support has been found to have both direct effects (Barling, Bluen, & Fain, 1987; Ganster, Fusilier, & Mayes, 1986) and moderating effects (Beehr, King, & King, 1990; Kirmeyer & Dougherty, 1988) on reported stress and health problems in the workplace. Results of this study provide evidence both for and against hypothesis 2© that social support will be positively correlated with lower levels of reported stress and higher levels of subjective health. Results presented in Chapter Five confirm many of the findings in the social support literature.

As predicted, an examination of the zero-order correlations and the partial regression coefficients indicate that social support was related to higher levels of self-reported physical and mental health. These findings also converge with existing stress and social support research (LaRocco, House, & French, 1980; Turner, 1981; Norbeck, 1985; Marshall & Barnett, 1992).

The findings from this study revealed that there was no correlation between social support and stress. The regression analysis also verified that

social support does not play a significant role in explaining the variance in perceived stress. Previous studies have also yielded conflicting results with regard to the effect of social support on stress.

LaRocco, House, & French (1980) studied men from 23 occupations and found that their findings supported the buffering hypothesis for mental and physical health, but failed to support the buffering hypothesis in regard to job-related stress and strain. However, it is difficult to compare the results of House et al. with these results because of the gender-biased sample in both studies.

Norbeck (1985) examined the types and sources of social support for managing job stress in critical care nursing and found that social support exerted main effects on stress but no buffering effects. In her model, social support explained 4.9% of the variance in perceived job stress. Norbeck also examined whether specific types of support were better predictors of stress and found that for job stress, work support accounted for 7.6% of the variance, emotional support, 3.6%, and tangible support 3.7%. This suggests that the total amount of social support may not be as reliable a predictor of job stress as the type of support. This may be a relevant explanation for why social support did not predict stress levels in this study.

The link between social support and health in this study requires further exploration using path analysis or LISREL to determine whether the effects of social support on health are direct, moderating, or interactive. In future studies, not only should the total support scale be evaluated, but the types and sources of support should be examined as well in order to determine a more accurate assessment of the effect of social support on stress and health.

CHAPTER SUMMARY

In conclusion, this cross-sectional study provided some evidence that generally, nurses are feeling stressed. It is apparent from the study findings that the turmoil inherent in the massive overhaul of the Alberta health care system, may have created stress for nursing staff. The fear of job loss or job uncertainty, especially in these times of high unemployment, were adversely related to both the mental health and stress of nurses. Both the stressfulness of the work environment and the stressfulness of job uncertainty produced equally strong negative associations with stress levels of nurses. Additional findings from this study indicate that psychosocial resources such as coping and social support were also related to physical health and mental health of acute care hospital nurses working in the midst of health care reform.

IMPLICATIONS OF RESEARCH FOR NURSING

Researchers have long been interested in the study of job stress. One reason researchers conduct stress research is to determine the causes of job stress. Several of the findings identified in this study have implications for nursing. This study revealed that job uncertainty was a major contributing factor to the perceived level of stress reported by nurses, followed by lack of time and resources, conflicting demands of doctors, patients, and other health care professionals, working with inexperienced nurses, and lack of time to give emotional support to patients and their families. Most of these stressors appear amenable to change (conflict with physicians, lack of time and resources, working with inexperienced nurses).

Once we determine factors influencing occupational stress, we can then attempt to alleviate stress in the workplace. When managers are provided with the knowledge of specific stressors for nurses, it enables them to work with

nurses in alleviating the sources of the stress. The relatively high level of stress reported by nurses in this sample suggests that job stress in nursing should be taken seriously by nurse managers, the Capital Health Authority, and the Alberta Government. These important findings should also be reported to the upper echelons of hospital administration so they will be aware of the consequences of job uncertainty and therefore ensure that hospital staff are kept informed of impending changes to health care structuring as soon as possible to alleviate the uncertainty. If these high stress levels persist, the quality of patient care may become compromised. In conclusion, nursing research must continue to highlight sources of stress so that remedial action can be sought and preventative measures can be taken.

Although a specific question with regard to how much control nurses have over their work was not assessed within the survey, comments made to the researcher during the inservices revealed that nurses were quite apathetic and feeling powerless to improve the current status of their work environment. There are things that can be done to lessen job stress. It seems necessary to empower nurses to influence the change process by becoming active participants in the changes made within the organization which affect the working conditions of nurses and other health care professionals. It is also essential for nurses to evaluate the sources of stress and ascertain ways to enhance individual input at the unit level and implement change where possible. It is also essential for hospital management to give nurses a sense of autonomy over such decisions as work-assignment, self-scheduling, workload, and unit level decisions.

CHAPTER SEVEN
LIMITATIONS AND RECOMMENDATIONS

Based on the findings of this study, the following limitations are recognized and recommendations for further research are offered. There are significant limitations inherent in this study that prevent one from drawing broad generalizations. One deficiency of this study was the use of cross-sectional data. When employing the use of a cross-sectional design, one cannot make legitimate claims about causal directions in the associations observed. It is anticipated that the results from this study may be confirmed with a longitudinal study.

A combination of quantitative and qualitative techniques of inquiry should be adopted in future job stress studies. Bargagliotti and Trygstad (1987) maintain that multiple problems exist in single research designs utilized for complex phenomena such as work-related stress. Goodwin and Goodwin (1984) are also advocates of combining both qualitative and quantitative measurement strategies in a single research design.

Additionally, attention in future research studies should be directed toward developing a theory of job uncertainty which conceptualizes stress and the process of coping with that stress. The quality and quantity of empirical data necessary to broaden our understanding of the possible health and well-being effects of occupational stress in nursing will necessitate a careful, prospective, longitudinal panel study specifically designed to examine the complexity of job stress and job uncertainty and its relationship to health and well-being.

The low response (27%) was also a concern with regard to the generalizability of the study results. Although it would appear that the

response is low, indeed this response rate may be conservative because of the inability of the researcher to attain from administration, an accurate number of nurses employed and working at the Royal Alexandra/Charles Camsell Hospitals at the time of the study (i.e., an estimate of 535 full-time nurses, 351 part-time nurses, and 150 casual and recall nurses was used to determine an approximate response rate). However, because only approximately 27% of nurses participated in the study, one must interpret these results with caution.

Although it does appear that a wide range of nurses with regard to age, unit type, marital status, and job status participated in the study, these results are only representative of the nurses that participated in the study because the researcher was unable to compare the respondents with the non-respondents (although not for lack of trying) in hopes of determining the representativeness of the sample of nurses participating in the study, It must also be noted that these results should not be generalizable to male nurses due to the low number of males in the study (n=13). In order to determine if there are gender-differences in the level of stress, in the use of coping styles, and the influence of social support, a larger sample of male nurses is required.

Future research would do well to sample nurses from a multitude of different health care institutions such as public health centers, home care facilities, long-term care institutions, and other acute care hospitals in order to clearly examine the extent of job stress for nurses working in the midst of the health care reform. It would also be useful to conduct a comparative analysis of several professions such as physicians, laboratory technicians, social workers, physiotherapists, and nurses in order to determine if there are differences in sources and consequences of stress for varying levels of health care professionals all working in the midst of health care reform.

Approximately 52% in the level of mental distress, 56% in the level of

perceived stress, and 67% in the level of physical health symptoms was left unexplained in these analyses. Control over the work-demand, personality characteristics such as hardiness, and other life domain stressors may account for a significant part of the unexplained variance of stress and health.

Karasek and Theorell (1990) assert that the amount of control an individual has over their work is a major determinant in the degree of stress experienced in their job. The level of control or autonomy was not addressed in this study. This may have been an oversight on behalf of the researcher and could have added a sufficient amount of predictability to job stress. In future studies, such as the longitudinal study in progress, an examination of the amount of control at work should be addressed.

Kobasa (1982) and McCranie, Lambert, and Lambert (1987) have found that a hardy personality, which is comprised of commitment, control, and challenge, mitigates the negative impact of stressful life events by influencing both cognitive appraisal and coping. It would appear that the hardy personality style may add a substantial amount of variance to the level of stress experienced by nurses, and may also serve to enhance cognitive appraisal and coping styles. It is suggested that hardiness be included in future analyses of occupational stress.

Frone, Russell, and Cooper (1995) assert that when studying job stress one must not make the mistake of only looking at one particular domain where stress may arise. They suggest that one may risk overestimating the magnitude of the relationship between stressors from a particular domain and overall stress if one fails to take into account the influence of stressors emanating from other life domains. This is another weakness with the present study. In future studies, it is imperative when studying job stress to assess the influence of family stressors and the conflict between work and family.

Another limitation of this study is model-fit. The use of multiple linear regression did not allow the researcher to determine main, interaction, or buffering effects of cognitive appraisal, coping, and social support. It is difficult to determine whether or not cognitive appraisal, coping, and social support intervened between the stressor and the outcome of that stressor as predicted in the conceptual model. In order to determine the intervening effects of these variables, the use of LISREL or path analysis will need to be employed in future analysis but is beyond the scope of this project.

CHAPTER EIGHT

JOB UNCERTAINTY: A QUALITATIVE STUDY

In reviewing the stress literature, it was found that most studies incorporated the use of either a quantitative or qualitative approach. Few studies, if any, have incorporated the use of both quantitative and qualitative methods. Bargagliotti and Trygstad (1987) believe that the merits of the either/or debate regarding qualitative and quantitative methodology are no longer appropriate for research centered on work-related stress.

Goodwin and Goodwin (1984) argue that a combination of qualitative and quantitative measurement strategies can increase the information yield and strengthen the external validity of the results. Duffy (1987) identifies four benefits that quantitative methods can add to qualitative research studies. First, by using quantitative methods prior to qualitative interviews, the replies to the survey can provide the foundation for subsequent interviews. Second, quantitative data can provide information about respondents who might be overlooked initially, prior to qualitative study. Third, the use of a survey tool and a representative sample may serve to correct a potential qualitative research problem of collecting data from an elite group. Fourth, quantitative methods can benefit qualitative observations in the analysis and interpretation phases of the study, thus correcting for the "holistic fallacy". The holistic fallacy is the tendency of qualitative researchers to perceive all aspects of a given situation as congruent, when in fact only those persons interviewed by the researcher may have held that particular view.

My review of the stress literature has also revealed that generally, job stress has been examined with the use of cross-sectional data. In order to study the process of coping with job stress, one must incorporate the use of a

longitudinal design. Lazarus and Folkman (1984) assert that the essence of stress, coping, and adaptation is change and in order to assess change it is imperative to study the same person over time.

The qualitative, longitudinal design will attempt to examine the process of how nurses adapt to impending and/or actual job loss, job displacement, or job change within the working environment, in order to explore why it is that some nurses perceive themselves to be stressed while others who are working under the same conditions do not. The health effects that nurses attribute to these changes will also be explored within the qualitative interviews. In short, the qualitative design will answer the Why? and How? questions, whereas the quantitative design answered the Who? What? When? and Where? questions.

The study findings from this qualitative research in conjunction with the findings from the cross-sectional study will be used to fully explore the relationship between job uncertainty and stress. In essence, a triangulation approach will be employed. Duffy (1987) defines triangulation as "the use of multiple methods, theories, data, and/or investigators in the study of a common phenomenon" (p. 130). Boyd (1993) cites two purposes for methodological triangulation: to increase the reliability and validity of a study by cross-validating the findings, and to increase the comprehensiveness of a study that neither approach, if used alone, could achieve.

The rationale for my use of a triangulation approach is twofold. First, the quantitative design is used to measure the distribution of a phenomenon (nursing stress), while the qualitative design will determine, in-depth, what is going on. Second, Polit and Hungler (1987) assert that qualitative methods can be useful as illustrations in a quantitatively focused study. Therefore, the qualitative method will not only be used to generate a theoretical

understanding, but it will also provide illustrations which will add a perspective that numbers alone in the quantitative design cannot provide. By combining both quantitative and qualitative methods, one is capable of creating the potential for counterbalancing the weaknesses of each method with the strengths of the other. Duffy (1987) states that "methodological triangulation has vital strengths and encourages creative and productive research undertakings" (p. 133).

The qualitative design is exploratory in nature, incorporating the use of semi-structured in-depth interviewing for a future research project (see Appendix C for a sample of the semi-structured questions). According to Palys (1992) exploratory research is used to gain an understanding of a particular phenomenon, in a meaningful way, in order to generate theories. Because the issue of job insecurity has not been examined for nurses, the exploratory phase of this study will aid the researcher in identifying important variables and questions to further guide the researcher in future studies. In order to explore how nurses adapt to relatively uncontrollable changes in their working life, such as job loss, job displacement, and job security, it is imperative to allow nurses to freely describe their perceptions, feelings, and experiences in their own words, without the researcher forcing the subject to respond to preset categories. Qualitative research allows researchers to get inside the skin of the subjects. Palys (1992) suggests that open-ended questions are superior when researchers are interested in hearing respondents' opinions in their own words, and are particularly useful in exploratory research when it is not clear what the range of anticipated responses are.

The subjects for this longitudinal, qualitative study were selected purposively from those nurses participating in the quantitative study. Those chosen will participate in face-to-face, semi-structured, taped interviews. The

qualitative sample will be derived according to demographic data, job status (job loss, job displacement, or job security), and perceived level of stress. Four groups of nurses were delineated from the survey: those nurses who have already been laid-off without bumping privileges resulting in recall status, those nurses who anticipate lay-offs without bumping privileges resulting in either unemployment or recall, those nurses who anticipate lay-offs but have bumping privileges resulting in job displacement, and those senior nurses who do not anticipate lay-offs or job displacement. Three to four nurses were interviewed for each of the four groups, focusing on nurses who report differing degrees of stress (which were obtained from their responses in the quantitative survey).

Phase one of the study has already been completed. The second interviews will take place in March, 1996. The early findings from the interviews are premature and therefore will not be discussed. It is anticipated that the combination of the cross-sectional quantitative and longitudinal qualitative findings will generate significant contributions to the job stress literature. Glaser and Strauss (1967) suggest that each form of quantitative and qualitative data are useful for both verification and generation of theory.

REFERENCES

Arnetz, Bengt B., Brenner, Sten-Olaf, Levi, Lennart, Hjelm, Robert, Petterson, Inga-Lill, Wasserman, Jerzy, Petrini, Bjorn, Eneroth, Peter, Kallner, Anders, Dvetnansky, Richard, & Vigas, Milan. (1991). Neuroendocrine and immunologic effects of unemployment and job insecurity. Psychotherapy and Psychosomatics, 55, 76-80.

Arney, L.K. (1988). Effects of personality-environment fit on job stress. Educational and Psychological Research, 8, 1-18.

Asbell, H.S. (1985). Stress management: Do we practice what we preach? Corrective and Social Psychiatry: Journal of Behavior Technology, Methods, and Therapy, 31(2), 55-57.

Bargagliotti & Trygstad. (1987). Differences in stress and coping findings: A reflection of social realities or methodologies? Nursing Research, **36**, 170-173.

Barling, J., Bluen, S.D., & Fain, R. (1987). Psychological functioning following an acute disaster. Journal of Applied Psychology, 72, 683-690.

Beehr, T.A., King, L.A., & King, D.W. (1990). Social support and occupational stress: Talking to supervisors. Journal of Vocational Behavior, 36, 61-81.

Blegen, Mary A. (1993). Nurses' job satisfaction: A meta-analysis of related variables. Nursing Research, 42(1), 36-41.

Blundell, W.E. (1978, August 17). As the budget axe falls so does productivity of grim U.S. workers. Wall Street Journal.

Bosse, Raymond, Aldwin, Carolyn M., Levenson, Michael, R., & Workman-Daniels, Kathryn. (1991). How stressful is retirement? Findings from the Normative Aging Study. Journal of Gerontology, 46(1), 9-14.

Boyd, Carolyn Oiler. (1993). Combining qualitative and quantitative approaches. In Patricia L. Munhall & Carolyn Oiler Boyd (Ed.), Nursing research: A qualitative perspective. New York: National League for Nursing Press.

Brief, Arthur P. & George, Jennifer M. (1995). Psychological stress and the workplace: A brief comment on Lazarus' outlook. In Rick Crandall & Pamela L. Perrewe (Eds.), Occupational stress: A handbook (pp.15-19). Washington, DC: Taylor & Francis.

Caplan, R.D. (1983). Person-environment fit: Past, present, and future. In C.L. Cooper (Ed.), Stress Research. New York: Wiley.

Coffey, L.C., Skipper, J.K., & Jung, F.D. (1988). Nurses and shiftwork: Effects on job performance and job-related stress. Journal of Advanced Nursing, 13, 245-254.

Cronkite, Ruth C. & Moos, Rudolf H. (1984). The role of predisposing and moderating factors in the stress-illness relationship. Journal of Health and Social Behavior, 25(December), 372-393.

Daft, Richard. (1989). Organization theory and design (3rd ed.). St. Paul: West.

Duffy, Mary E. (1987). Methodological triangulation: A vehicle for merging quantitative and qualitative research methods. IMAGE: Journal of Nursing Scholarship, 19(3), 130-133.

Ensel, Walter M. & Lin, Nan. (1991). The life stress paradigm and psychological distress. Journal of Health and Social Behavior, 32(4), 321-341.

Fletcher, B. & Payne, R. (1980). Stress and work: A review and theoretical framework. Personnel Review, 2-12.

Folkman, S. (1984). Personal control and stress and coping processes: A theoretical analysis. Journal of Personality and Social Psychology, 46, 839-852.

Folkman, Susan, Lazarus, Richard S., Dunkel-Schetter, Christine, DeLongis, Anita, & Gruen, Rand J. (1986). Dynamics of a stressful encounter: Cognitive appraisal, coping, and encounter outcomes. Journal of Personality and Social Psychology, 50(5), 992-1003.

Foxall, Martha J., Zimmerman, Lani, Standley, Roberta, & Bene Captain, Barbara. (1990). A comparison of frequency and sources of nursing job stress perceived by intensive care, hospice, and medical-surgical nurses. Journal of Advanced Nursing, 15, 577-584.

French, J.R.P., Jr. & Caplan, R.D. (1972). Organizational stress and individual strain. In A.J. Marrow (Ed.), The failure of success (pp. 30-66). New York: Amacon.

Frone, Michael R., Russell, Marcia, & Cooper, M. Lynne. (1995). Relationship of work and family stressors to psychological distress: The independent moderating influence of social support, mastery, active coping, and self-focused attention. In Rick Crandall & Pamela L. Perrewe (Eds.), Occupational stress: A handbook (pp.129-150). Washington, DC: Taylor & Francis.

Ganster, D.C., Fusilier, M.R., & Mayes, B.T. (1986). Role of social support in the experience of stress at work. Journal of Applied Psychology, 71, 102-110.

Glaser, B.G. & Strauss, A.L. (1967). The discovery of grounded theory: Strategies for qualitative research. Chicago: Aldine Publishing.

Goodwin, Laura D. & Goodwin, William L. (1984). Qualitative versus quantitative research or qualitative and quantitative research. Nursing Research, 33(6), 378-380.

Gutierres, Sara E., Saenz, Delia S., & Green, Beth L. (1995). Job Stress and health outcomes among white and hispanic employees: A test of the person-environment fit model. In Gwendolyn Puryear Keita and Joseph J. Hurrell, Jr. (Ed.), Job stress in a changing workforce (pp.107-125). Washington, DC: American Psychological Association.

Heim, E. (1991). Job stressors and coping in health professions. Psychotherapy and Psychosomatics, 55(2-4), 90-99.

Helm, Richard. (1994, October 17). Hospitals to slice another 950 jobs: Misericordia, Sturgeon face Grey Nuns' fate. The Edmonton Journal, pp. A1, A11.

Hendrix, William H., Summers, Timothy P., Leap, Terry L., & Steel, Robert P. (1995). Antecedents and organizational effectiveness outcomes of employee stress and health. In Rick Crandall & Pamela L. Perrewe (Eds.), Occupational stress: A handbook (pp. 73-92). Washington, DC: Taylor & Francis.

Holmes, T.H. & Rahe, R.H. (1967). The social readjustment scale. Journal of Psychosomatic Research, 11, 213-225.

House, J.S. (1981). Work stress and social support. Massachusetts: Addison-Wesley.

International Labor Office. (1993). Work Labor Report (6), Geneva.

Jick, Todd D. (1985). As the axe falls: Budget cuts and the experience of stress in organizations. In Terry A. Beehr and Rabi S. Bhagat (Ed.), Human stress and cognition in organizations (pp. 83-114). New York: John Wiley & Sons.

Karasek, Robert & Theorell, Tores. (1990). Healthy work: Stress, productivity, and the reconstruction of working life. USA: Basic Books.

Kasl, Stanislav, Gore, Susan, & Cobb, Sidney. (1975). The experience of losing a job: Reported changes in health, symptoms, and illness behavior. Psychosomatic Medicine, 37(2), 106-122.

Kirmeyer, S.L. & Dougherty, T.W. (1988). Work load, tension, and coping: Moderating effects of supervisor support. Personnel Psychology, 41, 125-139.

Kobasa, S.C. (1982). The hardy personality: Toward a social psychology of stress and health. In G.S. Sanders and J. Suls (Eds.), Social psychology of health and illness (pp. 3-32). New Jersey: Erlbaum.

Landsbergis, P.A. (1988). Occupational stress among health care workers: A test of the job demands-control model. Journal of Organizational Behavior, 9, 217-239.

LaRocco, James H., House, James S., & French, John R.P. Jr. (1980). Social support, occupational stress, and health. Journal of Health and Social Behavior, 21(3), 202-218.

Lazarus, Richard S. & Folkman, Susan. (1984). Stress, appraisal, and coping. New York: Springer.

Lowe, Graham S. & Northcott, Herbert C. (1986). Under pressure: A study of job stress. Toronto: Garamond Press.

Lowe, Graham S. & Northcott, Herbert C. (1988). The impact of working conditions, social roles, and personal characteristics on gender differences in distress. Work and Occupations, 15(1), 55-77.

Marshall, Nancy L. & Barnett, Rosalind C. (1992). Work-related support among women in caregiving occupations. Journal of Community Psychology, 20(1), 36-42.

Martin Matthews, Anne & Brown, Kathleen H. (1987). Retirement as a critical life event. Research on Aging, 9(4), 548-571.

McLaughlin, Ann Marie & Erdman, Jane. (1992). Rehabilitation staff stress as it relates to patient acuity and diagnosis. Brain Injury, 6(1), 59-64.

McRanie, Edward W., Lambert, Vicki Al, & Lambert Jr., Clinton E. (1987). Work stress, hardiness, and burnout among hospital staff nurses. Nursing Research, 36(6), 374-378.

Monat, A. (1976). Temporal uncertainty, anticipation time, and cognitive coping under threat. Journal of Human Stress, 2, 32-43.

Monat, A., Averill, J.R., & Lazarus, R.S. (1972). Anticipatory stress and coping reactions under various conditions of uncertainty. Journal of Personality and Social Psychology, 24, 237-253.

Moos, Rudolf H. & Schaefer, Jeanne A. (1993). Coping resources and processes: Current concepts and measures. In Leo Goldberger and Shlomo Breznitz (Eds.), Handbook of stress: Theoretical and clinical aspects (2nd ed) (pp. 234-257). New York: Free Press.

Norbeck, Jane S. (1985). Types and sources of social support for managing job stress in critical care nursing. Nursing Research, 34(4), 225-230.

Oehler, Jerri M., Gage-Davidson, Mary, Starr, Linda E., & Lee, Deborah A. (1991). Burnout, job stress, anxiety and perceived social support in neonatal nurses. Heart Lung, 20(5), 500-505.

Ogus, E. Dara. (1995). Burnout and coping strategies: A comparative study of ward nurses. In Rick Crandall & Pamela L. Perrewe (Eds.), Occupational stress: A handbook (pp. 249-261). Washington, DC: Taylor & Francis.

Palys, Ted. (1992). Research decisions: Quantitative and qualitative perspectives. Toronto: Harcourt Brace Jovanovich Canada.

Pinnell, Lynn Ellen. (1979). Perceptions of stress among hospital nursing staff. Unpublished masters thesis, University of Alberta, Edmonton.

Polit, Denise F. & Hungler, Bernadette P. (1987). Nursing research: Principles and methods (3rd ed.) Philadelphia: J.B. Lippincott.

Radloff, Lenore Sawyer. (1977). The CES-D scale: A self-report depression scale for research in the general population. Applied Psychological Measurement, 1(3), 385-401.

Rodney, Patricia & Starzomski, Rosalie. (1993). Constraints on the moral agency of nurses. Canadian Nurse, 89(9), 23-26.

Rosellini, L. (1981, December 16). Federal cuts increasing workers stress levels. New York Times.

Sarason, I.G., Levine, H.M., Basham, R.B., & Sarason, B.R. (1983). Assessing social support: The social support questionnaire. Journal of Personality and Social Psychology, 44(1), 127-139.

Skipper, James K., Jung, Fred D., & Coffey, Linda C. (1990). Nurses and shiftwork: Effects of physical health and mental depression. Journal of Advanced Nursing, 15, 835-842.

Spielberger, Charles D. & Reheiser, Eric C. (1995). Measuring occupational stress: The job stress survey. In Rick Crandall & Pamela L. Perrewe (Eds.), Occupational stress: A handbook (pp. 51-69). Washington, DC: Taylor & Francis.

Thomas, Gai. (1993). Working can be harmful to your health. Canadian Nurse, 89(6), 35-38.

Tomaka, Joe, Blascovich, Jim, Kelsey, Robert M., & Leitten, Christopher L. (1993). Subjective, physiological, and behavioral effects of threat and challenge appraisal. Journal of Personality and Social Psychology, 65(2), 248-260.

Turner, R. Jay. (1981). Social support as a contingency in psychological well-being. Journal of Health and Social Behavior, 22(December), 357-367.

Van Servellen, Gwen & Leake, Barbara. (1993). Burn-out in hospital nurses: A comparison of acquired immunodeficiency syndrome, oncology, general medicine, and intensive care unit nurse samples. Journal of Professional Nursing, 9(3), 169-177.

Wolfgang, Alan P. (1988). Job stress in the health professions: A study of physicians, nurses, and pharmacists. Behavioral Medicine, 14(1), 43-47.

Wolfgang, Alan P. (1995). Job stress, coping, and dissatisfaction in the health professions: A comparison of nurses and pharmacists. In Rick Crandall & Pamela L. Perrewe (Eds.), Occupational stress: A handbook (pp. 193-204). Washington, DC: Taylor & Francis.

APPENDIX A

A SURVEY OF JOB STRESS FOR NURSES

TITLE OF RESEARCH PROJECT: Nurses' Perception of Stress and the Process of Adaptation Following the Announcement of Impending Lay-Offs

PRINCIPAL INVESTIGATOR: Wendy L. Maurier, BScN, MA Candidate, 492-5935

THESIS SUPERVISOR: Dr. Herbert C. Northcott, Professor, Department of Sociology, 492-0479

My name is Wendy Maurier and I have been a staff nurse at the Royal Alex for the past 11 years. I am also a graduate student at the University of Alberta, Department of Sociology. As a graduate student, research is an essential aspect of a Master of Arts degree. The purpose of my thesis is to examine the issue of nursing stress by exploring how changes resulting from the Alberta Health Care Reform are affecting both the professional and personal lives of nurses.

In order to determine how the Alberta Health Care Reform has influenced your working lives, you are asked to complete this questionnaire. Your individual answers will remain completely CONFIDENTIAL and ANONYMOUS. All information obtained will only be accessed by the principal investigator. The information you give me will not be given to the hospital. However, generalized findings will be made available to all participants when the study is completed. No names will be used in reporting of results.

DO NOT place your name or any marking which could identify you on the questionnaire. If you are consenting to the interview segment of this study, remove the last page from the questionnaire so as not to identify yourself with your questionnaire.

If you have any questions about the questionnaire or the study, please feel free to contact me at 492-5935 (University of Alberta, Department of Sociology, Tory 4-19), or 492-5234 (Main Sociology Dept) and leave a message.

Please complete all questions on the questionnaire and put the completed questionnaire in the envelope provided and seal it. Leave the questionnaire in the basket labelled **completed questionnaires** on your unit, or if you are completing the questionnaire in the specified room with the investigator, give the questionnaire to her.

Thank you very much for your time and cooperation.

A Survey of Job Stress For
Royal Alexandra Hospital Nurses

INSTRUCTIONS:

1. Most questions can be answered by either circling a number or by filling in the appropriate number in the space provided. If you do not find the exact answer which fits your case, choose the one that comes closest to it. For some questions, you will be asked to fill in the blank.

2. Please answer all questions in order.

3. The value of the study depends on your being honest in answering the questionnaire. Remember, your answers will remain strictly confidential.

4. DO NOT SIGN YOUR NAME ON THE QUESTIONNAIRE, EXCEPT FOR THE TEAR SHEET AT THE END OF THE QUESTIONNAIRE. YOUR COOPERATION IS GREATLY APPRECIATED. THANK YOU FOR PARTICIPATING IN THIS STUDY.

ABOUT YOURSELF

1. Questionnaire number _____

2. How old are you? [_____] years

3. What is your sex?
   - Male 1
   - Female 2

4. What is your current marital status?
   - Single (Never Married) 1
   - Married 2
   - Common-Law 3
   - Divorced 4
   - Separated 5
   - Widowed 6

5. If **married or living common-law**, is your spouse presently working full-time, part-time, going to school, keeping house, or other? (circle one only)
   - Employed full-time 1
   - Employed part-time 2
   - Unemployed 3
   - Retired 4
   - In school 5
   - Keeping house 6
   - Other (specify) 7

6. Who is the primary bread-winner in your household?

Spouse 1
Yourself 2
Parent(s) 3
Other 4

7. How many dependent children do you have living in your household?

[_____] number

8. How many children under the age of 6 do you have living in your household?

[_____] number

9. What is the highest level of nursing education you have completed?

R.N. Diploma 1
R.N. Diploma with a Certificate 2
Bachelor's Degree in Nursing 3
Bachelor's Degree not in Nursing 4
Master's Degree in Nursing 5
Master's Degree not in Nursing 6
Doctorate Degree in Nursing 7
Doctorate Degree not in Nursing 8
Other 9

10. To date, how many years of nursing education have you had since the completion of your high school education? [_____] years

11. Are you presently enrolled in an education course or program leading toward a certificate or degree?

No 1
Yes 2

12. How did you vote in the last provincial election?

Progressive Conservative 1
Liberal 2
New Democrat Party 3
Reform Party 4
Other 5
Didn't Vote 6
Don't Know 7

13. If a provincial election were held today, how would you vote?

Progressive Conservative 1
Liberal 2
New Democrat Party 3
Reform Party 4
Other 5
Wouldn't Vote 6
Don't Know 7

THE FOLLOWING QUESTIONS LOOK AT YOUR WORK EXPERIENCE

14. In total, how long have you worked as a nurse, either in a full-time, part-time, or casual capacity?

[_____] years

15. What is your most recent start date of employment as a nurse at either the Royal Alexandra or Charles Camsell Hospital?

[19__] year [_____] month

16. What is your present job status? (circle the appropriate number)

Staff Nurse 1
Nursing Instructor 2
Clinical Development Nurse 3
Other 4

17. How long have you had the above job status?

[_____] years

18. What is your present employment status?

Permanent
full-time 1
part-time (less than 0.5) 2
part-time (0.5) 3
part-time (more than 0.5) 4
Temporary
full-time 5
part-time (less than 0.5) 6
part-time (0.5) 7
part-time (more than 0.5) 8
Recall (following lay-off notice) 9
Casual 10
Other 11

19. Have you looked for another job with an employer other than the Royal Alexandra or Charles Camsell Hospital in the last year?

No 1
Yes 2

20. Which of the following shifts best describes your present work schedule? (circle one)

8 hour day shift	1
10 hour day shift	2
12 hour day shift	3
8 hour evening shift	4
10 hour evening shift	5
12 hour evening shift	6
8 hour night shift	7
10 hour night shift	8
12 hour night shift	9
Rotating shift (8, 10, or 12 hour)	10
Other	11

21. How long have you worked on this shift?

[_____] years

22. If you had a choice, which shift would you prefer? (circle one)

8 hour day shift	1
10 hour day shift	2
12 hour day shift	3
8 hour evening shift	4
10 hour evening shift	5
12 hour evening shift	6
8 hour night shift	7
10 hour night shift	8
12 hour night shift	9
Rotating shift (8, 10, or 12 hour)	10
Other	11

23. In which of the following areas are you presently working? (circle one)

Medicine	1
Surgery (incl general surgery, orthopedics, urology, ENT, opthamology)	2
Obstetrics/Gynecology	3
Pediatrics	4
Neonatal Intensive Care	5
Adult Intensive Care	6
Emergency	7
Operating Room/Recovery Room	8
School of Nursing	9
Trauma Unit	10
Outpatient Department	11
Intravenous Team	12
Pre-Admissions Clinic	13
Radiology Department	14
Other	15

24. Have you ever been involuntarily unemployed in any job?

No 1
Yes 2

25. Have you ever continued to be unemployed after using up the maximum amount of unemployment insurance benefits?

No 1
Yes 2

26. Have you ever been laid-off from the Royal Alexandra or Charles Camsell Hospital?

No 1
Yes 2

If yes, how many times? [_____]

27. Have you ever been bumped out of your nursing position at either the Royal Alexandra or Charles Camsell Hospital?

No 1
Yes 2

If yes, how many times? [_____]

THE NEXT SECTION IS DIVIDED INTO 2 PARTS AND ASKS QUESTIONS ABOUT SITUATIONS WHICH MAY OR MAY NOT BE STRESSFUL IN YOUR WORK.

a) From your experience and/or in your opinion, please indicate how stressful each situation is or could be to you in your work by circling the appropriate number.

b) Please indicate how often the situation occurs in your work by circling the appropriate number.

HOW STRESSFUL DO YOU THINK IT IS OR COULD BE WHEN

28a. You have insufficient resources to do all the things that should be done?

Not at all stressful 1
Slightly stressful 2
Moderately stressful 3
Quite stressful 4
Extremely stressful 5

28b. How often does this situation occur on your unit?

Never 1
Rarely 2
Sometimes 3
Often 4
Always 5

HOW STRESSFUL DO YOU THINK IT IS OR COULD BE WHEN (CONTINUED)

29a. You are unable to satisfy the conflicting demands of doctors, patients, and other health professionals?

Not at all stressful 1
Slightly stressful 2
Moderately stressful 3
Quite stressful 4
Extremely stressful 5

29b. How often does this situation occur on your unit?

Never 1
Rarely 2
Sometimes 3
Often 4
Always 5

30a. The responsibilities of your job are unclear?

Not at all stressful 1
Slightly stressful 2
Moderately stressful 3
Quite stressful 4
Extremely stressful 5

30b. How often does this situation occur on your unit?

Never 1
Rarely 2
Sometimes 3
Often 4
Always 5

31a. There are personality conflicts among nursing staff?

Not at all stressful 1
Slightly stressful 2
Moderately stressful 3
Quite stressful 4
Extremely stressful 5

31b. How often does this situation occur on your unit?

Never 1
Rarely 2
Sometimes 3
Often 4
Always 5

32a. Nursing staff are insecure in their nursing knowledge or skills?

Not at all stressful 1
Slightly stressful 2
Moderately stressful 3
Quite stressful 4
Extremely stressful 5

32b. How often does this situation occur on your unit?

Never 1
Rarely 2
Sometimes 3
Often 4
Always 5

33a. Physicians do not communicate well with nursing staff?

Not at all stressful 1
Slightly stressful 2
Moderately stressful 3
Quite stressful 4
Extremely stressful 5

33b. How often does this situation occur on your unit?

Never 1
Rarely 2
Sometimes 3
Often 4
Always 5

HOW STRESSFUL DO YOU THINK IT IS OR COULD BE WHEN (CONTINUED)

34a. There are irregularities in the way time-off is scheduled?

Not at all stressful 1
Slightly stressful 2
Moderately stressful 3
Quite stressful 4
Extremely stressful 5

34b. How often does this situation occur on your unit?

Never 1
Rarely 2
Sometimes 3
Often 4
Always 5

35a. Working with inexperienced nurses new to your unit?

Not at all stressful 1
Slightly stressful 2
Moderately stressful 3
Quite stressful 4
Extremely stressful 5

35b. How often does this situation occur on your unit?

Never 1
Rarely 2
Sometimes 3
Often 4
Always 5

36a. Your workload is consistently heavy?

Not at all stressful 1
Slightly stressful 2
Moderately stressful 3
Quite stressful 4
Extremely stressful 5

36b. How often does this situation occur on your unit?

Never 1
Rarely 2
Sometimes 3
Often 4
Always 5

37a. You are exposed repeatedly to suffering, death, and dying?

Not at all stressful 1
Slightly stressful 2
Moderately stressful 3
Quite stressful 4
Extremely stressful 5

37b. How often does this situation occur on your unit?

Never 1
Rarely 2
Sometimes 3
Often 4
Always 5

38a. A co-worker gets laid-off or bumped from the unit you work on?

Not at all stressful 1
Slightly stressful 2
Moderately stressful 3
Quite stressful 4
Extremely stressful 5

38b. How often does this situation occur on your unit?

Never 1
Rarely 2
Sometimes 3
Often 4
Always 5

HOW STRESSFUL DO YOU THINK IT IS OR COULD BE WHEN (CONTINUED)

39a. Nurses are faced with the possibility of future job loss?

Not at all stressful 1
Slightly stressful 2
Moderately stressful 3
Quite stressful 4
Extremely stressful 5

39b. How often does this situation occur on your unit?

Never 1
Rarely 2
Sometimes 3
Often 4
Always 5

40a. You have insufficient time and resources to provide emotional support to patients and their families?

Not at all stressful 1
Slightly stressful 2
Moderately stressful 3
Quite stressful 4
Extremely stressful 5

40b. How often does this situation occur on your unit?

Never 1
Rarely 2
Sometimes 3
Often 4
Always 5

41a. You hear talk that registered nurses may be replaced by non-nurses (nursing attendants)?

Not at all stressful 1
Slightly stressful 2
Moderately stressful 3
Quite stressful 4
Extremely stressful 5

41b. How often does this situation occur on your unit?

Never 1
Rarely 2
Sometimes 3
Often 4
Always 5

42."In general, how stressed do you currently feel in your present job?"

Not at all stressed 1
Slightly stressed 2
Moderately stressed 3
Quite stressed 4
Extremely stressed 5

THE FOLLOWING QUESTION IS TO BE ANSWERED IN YOUR OWN WORDS.

43. Presently, what is it about the nursing profession that you find to be the most stressful?

_____

_____

_____

_____

THE FOLLOWING QUESTIONS ASK ABOUT YOUR JOB STATUS.

44. How likely is it that in the next round of lay-off notices, you will be laid-off or bumped without having bumping privileges, resulting in unemployment?

Not At All Likely						Very Likely
1	2	3	4	5	6	7

45. How likely is it that in the next round of lay-off notices, you will be laid-off or bumped without having bumping privileges, resulting in recall status?

Not At All Likely						Very Likely
1	2	3	4	5	6	7

46. How likely is it that in the next round of lay-off notices, you will be laid-off or bumped, but have bumping privileges?

Not At All Likely						Very Likely
1	2	3	4	5	6	7

47. How likely is it that if you get laid-off or bumped, you will use your bumping privileges to bump into another position?

Not At All Likely						Very Likely
1	2	3	4	5	6	7

48. How secure do you feel with your present position (seniority) on your unit?

Not At All Secure						Very Secure
1	2	3	4	5	6	7

49. How secure do you feel with your present nursing status (seniority) within the hospital?

Not At All Secure						Very Secure
1	2	3	4	5	6	7

50. a. Has the working environment on your unit changed over the past 18 months?

No ..... 1 If no, go to #51
Yes 2

b. If Yes, how has it changed?

_____

_____

_____

_____

_____

c. How much of a problem has this been for you?

No Problem						Very Great Problem
1	2	3	4	5	6	7

THE NEXT SECTION ASKS ABOUT YOUR HEALTH

51. In the past four months, how healthy have you felt . . .

a) physically?

Not Very Healthy						Very Healthy
1	2	3	4	5	6	7

b) mentally?

Not Very Healthy						Very Healthy
1	2	3	4	5	6	7

52. During the past four months, how many days did illness or injury keep you from work for all or most of the day? [_____] days (if none, enter 0)

53. In the past four months have you ever been disciplined by management for taking sick time?

No 1
Yes 2
Not Applicable (no sick time) 99

54. In the past four months have you ever taken a stress leave of absence?

No . . . . . 1 If no, go to #55
Yes 2

If yes, how long was the leave of absence? [_____] days

55. In the past four months, how many times did you go to your doctor (excluding prenatal visits and chronic illness)? [_____] number of visits

56. In the past four months, have you ever experienced any of the following general health problems?

a. general tiredness
- Never 1
- Rarely 2
- Sometimes 3
- Often 4
- Always 5

b. loss of appetite
- Never 1
- Rarely 2
- Sometimes 3
- Often 4
- Always 5

c. irritability
- Never 1
- Rarely 2
- Sometimes 3
- Often 4
- Always 5

d. sleeplessness
- Never 1
- Rarely 2
- Sometimes 3
- Often 4
- Always 5

e. dizziness
- Never 1
- Rarely 2
- Sometimes 3
- Often 4
- Always 5

f. headaches
- Never 1
- Rarely 2
- Sometimes 3
- Often 4
- Always 5

g. muscular aches and pains

Never 1
Rarely 2
Sometimes 3
Often 4
Always 5

57. Do you feel your work contributes to any of these health problems?

No 1
Yes 2

If yes, explain: _____

_____

_____

_____

58. How often have you experienced each of the following in the past week?

Never = none of the time
Rarely = part of 1 day
Sometimes = 1 - 2 days
Often = 3 - 4 days
Always = 5 - 7 days

a. bothered by things that usually don't bother you

Never 1
Rarely 2
Sometimes 3
Often 4
Always 5

b. did not feel like eating; appetite was poor

Never 1
Rarely 2
Sometimes 3
Often 4
Always 5

c. could not shake off the blues even with help from family or friends

Never 1
Rarely 2
Sometimes 3
Often 4
Always 5

Never = none of the time, **Rarely** = part of 1 day, **Sometimes** = 1-2 days, **Often** = 3-4 days, **Always** = 5-7 days (continued)

d. felt you were just as good as other people
- Never 1
- Rarely 2
- Sometimes 3
- Often 4
- Always 5

e. had trouble keeping your mind on what you were doing
- Never 1
- Rarely 2
- Sometimes 3
- Often 4
- Always 5

f. felt depressed
- Never 1
- Rarely 2
- Sometimes 3
- Often 4
- Always 5

g. felt that everything you did was an effort
- Never 1
- Rarely 2
- Sometimes 3
- Often 4
- Always 5

h. felt hopeful about the future
- Never 1
- Rarely 2
- Sometimes 3
- Often 4
- Always 5

I. thought your life had been a failure
- Never 1
- Rarely 2
- Sometimes 3
- Often 4
- Always 5

Never = none of the time, **Rarely** = part of 1 day, **Sometimes** = 1-2 days, **Often** = 3-4 days, **Always** = 5-7 days (continued)

j. felt fearful
- Never . . . 1
- Rarely . . . 2
- Sometimes . . . 3
- Often . . . 4
- Always . . . 5

k. slept restlessly
- Never . . . 1
- Rarely . . . 2
- Sometimes . . . 3
- Often . . . 4
- Always . . . 5

l. felt happy
- Never . . . 1
- Rarely . . . 2
- Sometimes . . . 3
- Often . . . 4
- Always . . . 5

talked less than usual
- Never . . . 1
- Rarely . . . 2
- Sometimes . . . 3
- Often . . . 4
- Always . . . 5

n. felt lonely
- Never . . . 1
- Rarely . . . 2
- Sometimes . . . 3
- Often . . . 4
- Always . . . 5

o. felt people were unfriendly
- Never . . . 1
- Rarely . . . 2
- Sometimes . . . 3
- Often . . . 4
- Always . . . 5

Never = none of the time, **Rarely** = part of 1 day, **Sometimes** = 1-2 days, **Often** = 3-4 days, **Always** = 5-7 days (continued)

p. enjoyed life
- Never 1
- Rarely 2
- Sometimes 3
- Often 4
- Always 5

q. had crying spells
- Never 1
- Rarely 2
- Sometimes 3
- Often 4
- Always 5

r. felt sad
- Never 1
- Rarely 2
- Sometimes 3
- Often 4
- Always 5

s. felt people disliked you
- Never 1
- Rarely 2
- Sometimes 3
- Often 4
- Always 5

t. couldn't get going
- Never 1
- Rarely 2
- Sometimes 3
- Often 4
- Always 5

u. thought about suicide
- Never 1
- Rarely 2
- Sometimes 3
- Often 4
- Always 5

59. Since the implementation of the Alberta Health Care Reform, beginning April, 1993, do you feel your overall health has been better, worse, or about the same as a result of:

a. the kind of work you do
- Much worse 1
- Slightly worse 2
- About the same 3
- Slightly better 4
- Much better 5

b. the hours you work
- Much worse 1
- Slightly worse 2
- About the same 3
- Slightly better 4
- Much better 5

c. your general work environment
- Much worse 1
- Slightly worse 2
- About the same 3
- Slightly better 4
- Much better 5

d. your current workload
- Much worse 1
- Slightly worse 2
- About the same 3
- Slightly better 4
- Much better 5

e. job uncertainty
- Much worse 1
- Slightly worse 2
- About the same 3
- Slightly better 4
- Much better 5

THE FOLLOWING 5 QUESTIONS DEAL WITH SUPPORT SYSTEMS

The following questions ask about people in your environment who provide you with help or support. Each question has three parts:

1. list a maximum of 4 people you know (their initials) and their relationship to you (ie. spouse, friend, co-worker), whom you can count on for help or support.
2. circle how satisfied you are with the overall support you have.
3. indicate whether or not the overall support is usually offered by the person(s) or requested by yourself.

60. Who do you feel really **appreciates you as a person**?

a. List up to four people and their relationship to you.

	Initials	Relationship to You
1.		
2.		
3.		
4.		

b. Overall, how satisfied are you with their support (appreciation of you as a person)?

Not At All Satisfied						Very Satisfied
1	2	3	4	5	6	7

c. Overall, is this form of support **usually** offered by the person(s) or requested by you?

Offered 1
Requested 2

61. Whom can you count on to **console you when you are very upset**?

a. List up to four people and their relationship to you.

	Initials	Relationship to You
1.		
2.		
3.		
4.		

b. Overall, how satisfied are you with their support (console you when you are upset)?

Not At All Satisfied						Very Satisfied
1	2	3	4	5	6	7

c. Overall, is this form of support **usually** offered by the person(s) or requested by you?
Offered 1
Requested 2

62. Whom can you really count on when you **need financial help**?

a. List up to four people and their relationship to you.

	Initials	Relationship to You
1.		
2.		
3.		
4.		

b. Overall, how satisfied are you with their financial support?

Not At All Satisfied						Very Satisfied
1	2	3	4	5	6	7

c. Overall, is this form of support **usually** offered by the person(s) or requested by you?

Offered 1
Requested 2

63. Whom do you go to for **information with regard to changes within the work** environment?

a. List up to four people and their relationship to you.

	Initials	Relationship to You
1.		
2.		
3.		
4.		

b. Overall, how satisfied are you with their support (information-giving)?

Not At All Satisfied						Very Satisfied
1	2	3	4	5	6	7

c. Overall, is this form of support **usually** offered by the person(s) or requested by you?

Offered 1
Requested 2

64. Whom can you really count on to **lend you a hand at work**?

a. List up to four people and their relationship to you.

	Initials	Relationship to You
1.		
2.		
3.		
4.		

b. Overall, how satisfied are you with their support (lending you a hand at work)?

Not Very Satisfied						Very Satisfied
1	2	3	4	5	6	7

c. Overall, is this form of support **usually** offered by the person(s) or requested by you?

Offered 1
Requested 2

WE HAVE ALL HEARD OF THE IMPENDING JOB LOSSES WHICH ARE TO OCCUR IN THE HEALTH CARE SYSTEM SOMETIME THIS WINTER/SPRING, 1995. KEEPING THIS IS MIND, READ EACH ITEM BELOW AND INDICATE, BY CIRCLING THE APPROPRIATE NUMBER, TO WHAT EXTENT YOU HAVE USED THE FOLLOWING IN DEALING WITH IMPENDING JOB LOSSES.

Use the following scale:

Not used	**Used somewhat**	**Used quite a bit**	**Used a great deal**
1	**2**	**3**	**4**

65. I concentrated on what I had to do next - the next step.

1	2	3	4

66. I tried to analyze the problem in order to understand it better.

1	2	3	4

67. I felt that time would make a difference and that the only thing to do is wait.

1	2	3	4

Not used	Used somewhat	Used quite a bit	Used a great deal
1	2	3	4

68. I tried to find something positive from the situation.

1 2 3 4

69. I tried to get the person(s) responsible to change their mind.

1 2 3 4

70. I tried to talk to someone to find out more about the situation.

1 2 3 4

71. I started using drugs such as cocaine or marijuana, or increased my usage of such drugs.

1 2 3 4

72. I hoped a miracle would happen.

1 2 3 4

73. I went on as if nothing has happened.

1 2 3 4

74. I tried to keep my feelings to myself.

1 2 3 4

75. I expressed anger to the person(s) who caused the problem.

1 2 3 4

76. I expressed anger toward other people.

1 2 3 4

77. I was inspired to do something creative.

1 2 3 4

78. I tried to forget the whole thing.

1 2 3 4

Not used	Used somewhat	Used quite a bit	Used a great deal
1	2	3	4

79. I got professional help.

1 2 3 4

80. I changed or grew as a person in a good way.

1 2 3 4

81. I waited to see what would happen before doing anything.

1 2 3 4

82. I made a plan of action and followed it.

1 2 3 4

83. I let my feelings out.

1 2 3 4

84. I smoked more cigarettes than usual for me.

1 2 3 4

85. I talked to someone who could do something concrete about the problem.

1 2 3 4

86. I got away from it for awhile; tried to rest or take a vacation.

1 2 3 4

87. I ate more food than usual for me.

1 2 3 4

88. I tried not to act too hastily.

1 2 3 4

89. I found new faith.

1 2 3 4

Not used	Used somewhat	Used quite a bit	Used a great deal
1	2	3	4

90. I kept a stiff upper lip.

1 2 3 4

91. I rediscovered what is important in life.

1 2 3 4

92. I changed something so things would turn out all right.

1 2 3 4

93. I avoided being with people in general.

1 2 3 4

94. I didn't let it get to me; refused to think too much about it.

1 2 3 4

95. I asked a relative or friend I respect for advice.

1 2 3 4

96. I kept others from knowing how bad things were/are.

1 2 3 4

97. I drank more alcohol than usual for me.

1 2 3 4

98. I made light of the situation; refused to get too serious about it.

1 2 3 4

99. I talked to someone about how I am feeling.

1 2 3 4

100. I stood my ground and fought for what I wanted.

1 2 3 4

Not used	Used somewhat	Used quite a bit	Used a great deal
1	2	3	4

101. I drew on my past experiences; I was in a similar situation before.

1 2 3 4

102. I knew what had to be done, so I doubled my efforts to make things work.

1 2 3 4

103. I refused to believe that it will happen.

1 2 3 4

104. I promised myself that things will be different next time.

1 2 3 4

105. I accepted it, since nothing can be done.

1 2 3 4

106. I took prescription medications, such as nerve pills or sleeping pills.

1 2 3 4

107 I tried to keep my feelings from interfering with other things too much.

1 2 3 4

108. I wished I could change what is about to happen or how I feel about it.

1 2 3 4

109. I changed something about myself.

1 2 3 4

110. I wished the situation would go away or somehow be over with.

1 2 3 4

111. I have fantasies or wishes about how things might turn out.

1 2 3 4

Not used	Used somewhat	Used quite a bit	Used a great deal
1	2	3	4

112. I prayed.

1 2 3 4

113. I prepared myself for the worst.

1 2 3 4

114. I tried to see things from the other person's point of view.

1 2 3 4

115. I reminded myself how much worse things could be.

1 2 3 4

116. I jogged or exercised.

1 2 3 4

117. I ate less food than usual for me.

1 2 3 4

118. I tried something entirely different from any of the above.

1 2 3 4

If yes, please describe what you have tried.

_____

_____

_____

_____

PLEASE INDICATE THE EXTENT TO WHICH EACH OF THE FOLLOWING IS AT RISK IN THE SITUATION OF EITHER IMPENDING JOB LOSS, BUMPING, OR CHANGES TO THE WORK ENVIRONMENT.

119. The possibility of losing the affection of someone important to you.

does not apply				applies a great deal
1	2	3	4	5

120. Losing your self-respect.

does not apply				applies a great deal
1	2	3	4	5

121. Appearing to be an uncaring person.

does not apply				applies a great deal
1	2	3	4	5

122. Appearing unethical.

does not apply				applies a great deal
1	2	3	4	5

123. Losing the approval or respect of someone important to you.

does not apply				applies a great deal
1	2	3	4	5

124. Appearing incompetent.

does not apply				applies a great deal
1	2	3	4	5

125. Harm to a loved one's health, safety, or physical well- being.

does not apply				applies a great deal
1	2	3	4	5

126. Harm to a loved one's emotional well-being.

does not apply				applies a great deal
1	2	3	4	5

127. Not achieving an important goal at your job.

does not apply				applies a great deal
1	2	3	4	5

128. Harm to your own safety, health, or physical well-being.

does not apply				applies a great deal
1	2	3	4	5

129. A strain on your financial resources.

does not apply				applies a great deal
1	2	3	4	5

130. Losing respect for someone else.

does not apply				applies a great deal
1	2	3	4	5

THE FOLLOWING USES A SCALE FROM 1 TO 7 TO FIND OUT HOW MUCH YOU AGREE OR DISAGREE WITH THE STATEMENTS ABOUT THE ALBERTA HEALTH CARE REFORM AND IMPENDING JOB LOSSES.

Disagree Strongly	Disagree Quite A Lot	Disagree A Little	Neither Agree Nor Disagree	Agree A Little	Agree Quite A Lot	Agree Strongly
1	2	3	4	5	6	7

131. The announcement of impending job losses is a situation which:

a. you can deal with or do something about.

1	2	3	4	5	6	7

b. you have to accept.

1	2	3	4	5	6	7

Disagree Strongly	Disagree Quite A Lot	Disagree A Little	Neither Agree Nor Disagree	Agree A Little	Agree Quite A Lot	Agree Strongly
1	2	3	4	5	6	7

c. you need to know more about before you can act.

1	2	3	4	5	6	7

d. you have to hold yourself back from doing what you want to do.

1	2	3	4	5	6	7

132. If a severance package were offered to registered nurses, I would take the severance package.

1	2	3	4	5	6	7

133. Reducing the Provincial deficit should have been done a long time ago.

1	2	3	4	5	6	7

134. The cuts to health care are too severe and too quick.

1	2	3	4	5	6	7

135. The cuts to health care have resulted in a lower quality of patient care.

1	2	3	4	5	6	7

136 The cuts to health care have resulted in nurses working in an unsafe, stressful environment.

1	2	3	4	5	6	7

137. The cuts to health care will have a positive impact on the nursing profession in the future.

1	2	3	4	5	6	7

YOU HAVE REACHED THE END OF THE QUESTIONNAIRE. ONCE AGAIN I WOULD LIKE TO THANK YOU FOR YOUR TIME AND PARTICIPATION IN THIS STUDY.

PLEASE FEEL FREE TO MAKE FURTHER COMMENTS ON THE HEALTH CARE REFORM AND HOW IT HAS AFFECTED YOU BOTH PERSONALLY AND PROFESSIONALLY.

Interview Participation

Part II of this study will consist of in-depth interviews with nurses about how they are adapting to the changes brought about by the Alberta Health Care Reform.

The researcher will be conducting interviews (approximately 45-90 minutes or less in duration) at four points in time over the next 12-18 months.

If you are interested in participating in the interview phase of this study please provide the researcher with your name and telephone number below. Please note that you may or may not be called.

Name:_____

Telephone Number: Home:_____

Work:_____

If you are completing this questionnaire in the presence of the researcher, please hand in the questionnaire and the interview participation form separately. Place the interview form in the envelope labelled **interview** and give your questionnaire to the researcher.

If you are completing this questionnaire not in the presence of the researcher, then place the completed questionnaire in the brown envelope, sealed, and the interview participation form in the white envelope labelled **interview**. Then place both envelopes separately in the magazine holder which are labelled **completed questionnaires.**

APPENDIX B

QUALITATIVE INTERVIEW PARTICIPATION CONSENT

Project Title: Nurses' Perception of Stress and the Process of Adaptation Following the Announcement of Impending Lay-Offs

Investigator: Wendy Maurier, RN, BScN, MA Candidate, 492-5935

Thesis Supervisor: Dr. Herbert Northcott, Professor, Department of Sociology, University of Alberta, 492-0479

This study is undertaken as part of the requirements of the Master of Arts degree in Sociology, University of Alberta. The purpose of this study is to examine the issue of nursing stress by exploring how changes resulting from the Alberta Health Care Reform are affecting both the professional and personal lives of nurses.

The researcher is interested in listening to how you are adapting to the changes occurring in your working environment. The qualitative study will consist of four interviews approximately 2-6 months apart over a one-year time period. Each interview will last 45-60 minutes or less in duration.

The interviews will be tape-recorded and transcribed by the investigator. Your name will not appear on the tape or on the transcriptions. Your name will be replaced by a code number. The code number reference list will be kept separately from the tapes and transcriptions in a locked filing cabinet. All information obtained will be kept strictly confidential and will only be accessed by the investigator. The information you tell me will not be given to the hospital. However, generalized findings will be made available to all participants. No names will be used in reporting of results.

You are free not to answer any specific questions and may withdraw from the study at any time, without penalty. Please feel free to ask me any questions about the study.

Thank-you for your cooperation in this study.

Authorization: I have read the above and agree to participate as a volunteer in the above study. I have been given the opportunity to ask questions and all such questions have been answered to my satisfaction. I understand that the researcher will make every effort to ensure my privacy and anonymity when citing material.

Name/Signature of Participant: _____

Investigator: _____ **Date**: _____

APPENDIX C

QUALITATIVE SEMI-STRUCTURED QUESTIONS

Wave I

1. Tell me about your initial reaction/feelings regarding the changes being made to Alberta Health Care.

2. What are your feelings now? How have they changed?

3. Tell me how you initially felt on either hearing or reading about the future lay-offs of nurses?

4. What are your thoughts, concerns, or feelings about the impending layoffs?

5. How do you deal with these feelings?

6. How do you think these impending lay-offs will affect/have affected you professionally?

7. What kind of changes, if any, have you made in your professional life to adjust to the uncertainty in your work environment?

8. How do you think these impending lay-offs will affect/have affected you personally, as opposed to professionally? (ie., family life, marital relationship, financial situation)

9. What kind of changes, if any, have you made in your personal life to adjust to the uncertainty in your work environment?

10. How has this situation affected your health?

11. What is the most difficult part of this situation?

12. Has it been beneficial? How?

13. For you, what does it mean to be a nurse?

14. How have your personal values and beliefs about nursing been challenged?

15. How have you dealt with this?